

THE ARCHITECTS' JOURNAL



standard contents

every issue does not necessarily contain all these contents, but they are the regular features which continually recur.

NEWS and COMMENT

Diary

News

Astragal's Notes and Topics

Letters

Societies and Institutions

TECHNICAL SECTION

Information Sheets

Information Centre

Current Technique

Questions and Answers

Prices

The Industry

PHYSICAL PLANNING

SUPPLEMENT

CURRENT BUILDINGS

HOUSING STATISTICS

Architectural Appointments
Wanted and Vacant

No. 2981

THE ARCHITECTURAL PRESS
11 and 13, Queen Anne's Gate, Westminster,
S.W.1. Phone: Whitehall 0611

Price 1s.0d.

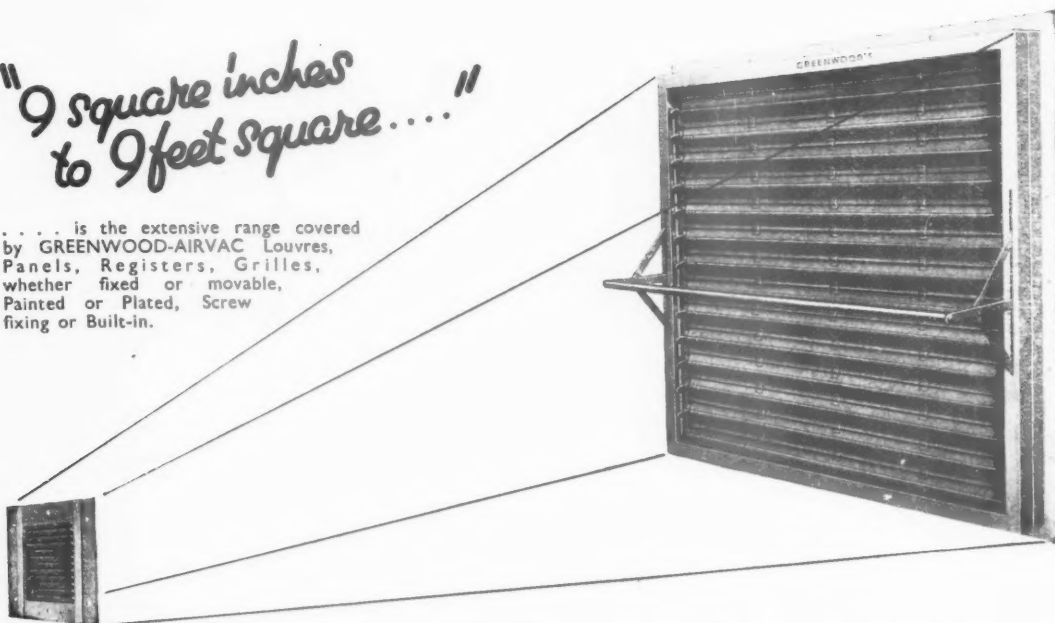
Registered as a Newspaper.

A glossary of abbreviations of Government Departments and Societies and Committees of all kinds, together with their full address and telephone numbers. The glossary is published in two parts—A to I one week, I to Z the next. In all cases where the town is not mentioned the word LONDON is implicit in the address.

| | | |
|-----------|---|--------------------------|
| AA | Architectural Association, 34/6, Bedford Square, W.C.1. | Museum 0974 |
| AAI | Association of Art Institutions. Secy.: W. Marlborough Whitehead, "Dyneley", Castle Hill Avenue, Berkhamstead, Herts. | |
| ABS | Architects' Benevolent Society, 66, Portland Place, W.1. | Langham 5721 |
| ABT | Association of Building Technicians, 5, Ashley Place, S.W.1. | Victoria 0447-8 |
| ACGB | Arts Council of Great Britain, 4, St. James' Square, S.W.1. | Whitehall 9737 |
| ADA | Aluminium Development Association, 33, Grosvenor Street, W.1. | Mayfair 7501/8 |
| APRR | Association for Planning and Regional Reconstruction, 34, Gordon Square, W.C.1. | Euston 2158-9 |
| ArchSA | Architectural Students' Association, 34/36, Bedford Square, W.C.1. | |
| ARCUK | Architects' Registration Council, 68, Portland Place, W.1. | Langham 8738 |
| ASCW | Association of Scientific Workers, 15, Half Moon Street, Piccadilly, W.1. | Grosvenor 4761 |
| BAE | Board of Architectural Education, 66, Portland Place, W.1. | Langham 5721 |
| BATC | Building Apprenticeship and Training Council, Lambeth Bridge House, S.E.1. | Reliance 7611, Ext. 1706 |
| BC | Building Centre, 26, Store Street, Tottenham Court Road, W.C.1. | Museum 5400 |
| BCC | British Colour Council, 13, Portman Square, W.1. | Welbeck 4185 |
| BCCF | British Cast Concrete Federation, 17, Amherst Road, Ealing, W.13. | Perivale 6869 |
| BCIRA | British Cast Iron Research Association, Alvechurch, Birmingham. | Redditch 716 |
| BDA | British Door Association, 10, The Boltons, S.W.10. | Flaxman 7766 |
| BEDA | British Electrical Development Association, 2, Savoy Hill, W.C.2. | Temple Bar 9434 |
| BIA | British Ironfounders' Association, 145, Vincent Street, Glasgow, C.2. | Glasgow Central 2891 |
| BIAE | British Institute of Adult Education, 29, Tavistock Square, W.C.1. | Euston 5385 |
| BID | Building Industries Distributors, 52, High Holborn, W.C.1. | Chancery 7772 |
| BINC | Building Industries National Council, 11, Weymouth Street, W.1. | Langham 2785 |
| BOT | Board of Trade, Millbank, S.W.1. | Whitehall 5140 |
| BRDB | British Rubber Development Board, Market Buildings, Mark Lane, E.C.3. | Mansion House 9383 |
| BRS | Building Research Station, Bucknalls Lane, Watford. | Garston 2246 |
| BSA | Building Societies Association, 14, Park Street, W.1. | Mayfair 0515 |
| BSI | British Standards Institution, 28, Victoria Street, S.W.1. | Abbey 3333 |
| BTE | Building Trades Exhibition, 4, Vernon Place, W.C.1. | Holborn 8146/7 |
| CABAS | City and Borough Architects Society, C/o Johnson Blackett, F.R.I.B.A., Borough Architect, Town Hall, Newport, Mon. | Newport 3111 |
| CAS | County Architects Society, C/o F. R. Steele, F.R.I.B.A., County Hall, Chichester. | Chichester 3001 |
| CCA | Cement and Concrete Association, 52, Grosvenor Gardens, S.W.1. | Sloane 5255 |
| CCP | Council for Codes of Practice, Lambeth Bridge House, S.E.1. | Reliance 7611 |
| CDA | Copper Development Association, Kendals Hall, Radlett, Herts. | Radlett 5616 |
| CIAM | Congrès Internationaux d'Architecture Moderne, Dolderal, 7, Zurich, Switzerland. | |
| COID | Council of Industrial Design, Tilbury House, Petty France, S.W.1. | Whitehall 6322 |
| CPRE | Council for the Preservation of Rural England, 4, Hobart Place, S.W. | Sloane 4280 |
| CUC | Coal Utilization Council, 3, Upper Belgrave Street, S.W.1. | Sloane 9116 |
| CVE | Council for Visual Education, 13, Suffolk Street, Haymarket, S.W.1. | Reading 72255 |
| DGW | Directorate General of Works, Ministry of Works, Lambeth Bridge House, S.E.1. | Reliance 7611 |
| DIA | Design and Industries Association, 13, Suffolk Street, S.W.1. | Whitehall 0540 |
| DPT | Department of Overseas Trade, 35, Old Queen Street, S.W.1. | Victoria 9040 |
| EJMA | English Joinery Manufacturers' Association (Incorporated), 40, Piccadilly, W.1. | Regent 4448 |
| EPNS | English Place-Name Society, 7, Selwyn Gardens, Cambridge. | |
| FAS | Faculty of Architects and Surveyors, 8, Buckingham Palace Gdns, S.W.1. | Sloane 2837 |
| FASSC | Federation of Association of Specialists and Sub-Contractors, 5, Arundel Street, Strand. | Temple Bar 6633 |
| FBI | Federation of British Industries, 21, Tothill Street, S.W.1. | Whitehall 6711 |
| FC | Forestry Commission, 25, Savile Row, W.1. | |
| FCMI | Federation of Coated Macadam Industries, 37, Chester Square, S.W.1. | Sloane 1002 |
| FDMA | The Flush Door Manufacturers Association Ltd. Trowell, Nottingham. | Ilkeston 623 |
| FLD | Friends of the Lake District, Pennington House, nr. Ulverston, Lancs. | Ulverston 201 |
| FMB | Federation of Master Builders, 26, Great Ormond Street, Holborn, W.C.1. | Chancery 7583 |
| FPC | The Federation of Painting Contractors, St. Stephen's House, S.W.1. | Whitehall 3902 |
| FRHB | Federation of Registered House Builders, 82, New Cavendish Street, W.1. | Langham 4041 |
| FS (Eng.) | Faculty of Surveyors of England, Buckingham Palace Gdns., S.W.1. | Sloane 2837 |
| GC | Gas Council, 1, Grosvenor Place, S.W.1. | Sloane 4554 |
| GG | Georgian Group, 27, Grosvenor Place, S.W.1. | Sloane 2844 |
| HC | Housing Centre, 13, Suffolk Street, Pall Mall, S.W.1. | Whitehall 2881 |
| IAAS | Incorporated Association of Architects and Surveyors, 75, Eaton Place, S.W.1. | Sloane 5615 |
| ICA | Institute of Contemporary Arts, 17-18, Dover Street, Piccadilly, W.1. | Grosvenor 6186 |
| ICE | Institution of Civil Engineers, Great George Street, S.W.1. | Whitehall 4577 |
| IEE | Institution of Electrical Engineers, Savoy Place, W.C.2. | Temple Bar 7676 |
| IES | Illuminating Engineering Society, 32, Victoria Street, S.W.1. | Abbey 5215 |

"9 square inches
to 9 feet square...."

... is the extensive range covered
by GREENWOOD-AIRVAC Louvres,
Panels, Registers, Grilles,
whether fixed or movable,
Painted or Plated, Screw
fixing or Built-in.



GREENWOOD'S AND AIRVAC
Ventilating Company Limited
BEACON HOUSE CHANCERY BUS G7 KING'S WAY LONDON-W.C.2



RIGHT FOR ANY SITE

Architects and
Builders know that
Bestos will meet with the
requirements of any building site.

Manufactured entirely
from mineral asbestos and
asphaltic bitumens, Bestos is unaffected by normal building settlement, organic rot and capillary action. The composition of Bestos gives a flexible, waterproof dampcourse which is absolutely permanent. Architects and Builders are wise to choose the best—BESTOS.



ANDERSON'S BESTOS DAMPCOURSE

D. ANDERSON & SON LTD., STRETFORD, MANCHESTER

ROACH ROAD, OLD FORD, LONDON E3

TE

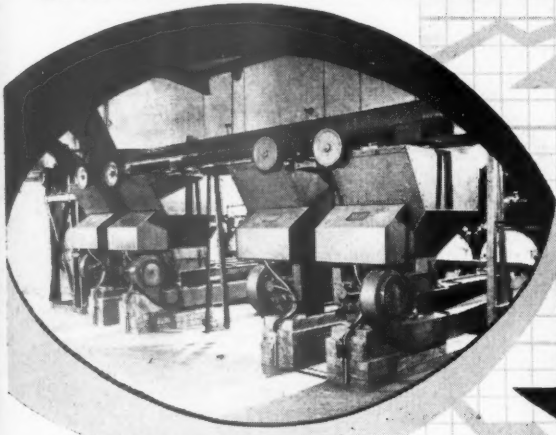
ts and
that
h the
site.



SE

DON E3

BOILER EFFICIENCY UP



FUEL COSTS DOWN

The Iron Fireman Method of automatic coal firing is the answer to to-day's pressing fuel problems. It is a proved method whereby every available heat unit is correctly utilized. The Iron Fireman installation pictured on the left consists of four closed hopper type stokers fed by overhead conveyor. Note the extreme cleanliness of the boilerhouse—typical of all Iron Fireman installations. The fullest technical advice on the most suitable type of stoker for your requirements may be had from any of the offices listed below.

Iron Fireman
FIRST AND FOREMOST
Automatic Coal Stokers

ASHWELL & NESBIT LTD., BARKBY ROAD, LEICESTER

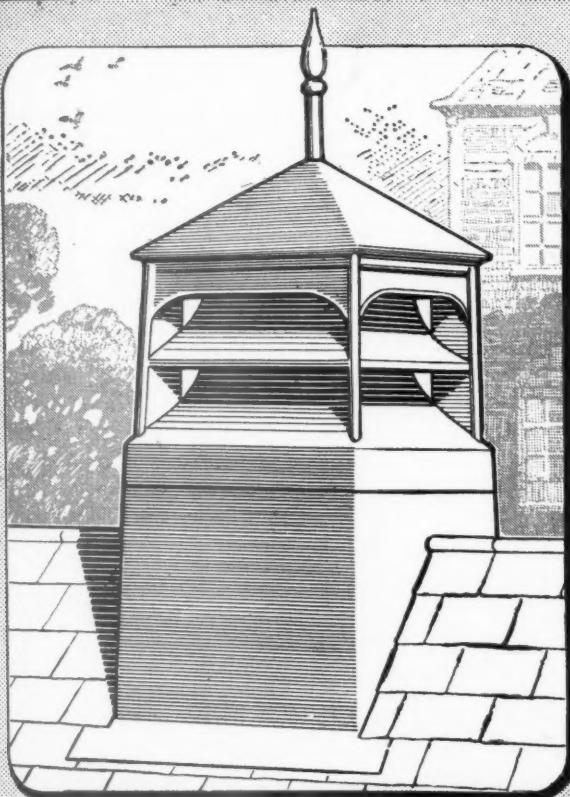
LONDON : 12 Gt. James Street, Bedford Row, W.C.1

BIRMINGHAM (4) : 12 Whittall Street

LEEDS (6) : 32 Headingley Lane

MANCHESTER (13) : 184 Oxford Road

GLASGOW : 103 Douglas Street, C2



TO THE ARCHITECT - SURVEYOR AND BUILDER

*Yours the problem -
Harveys the answer!*

Whenever the question of "where-to-get" Ventilators arises—remember Harveys. For Harveys make the long-established "Harco" self-acting ventilator that ensures effective draught-free ventilation for any type of building—Hospital, School, Garage, Workshop, Hostel, etc. Our illustration shows "Harco" Ventilator No. 68, but this is only one of a very wide range of patterns and sizes. Get all your supplies from your local Builders' Merchant. For full particulars write for Catalogue A.J. 481.

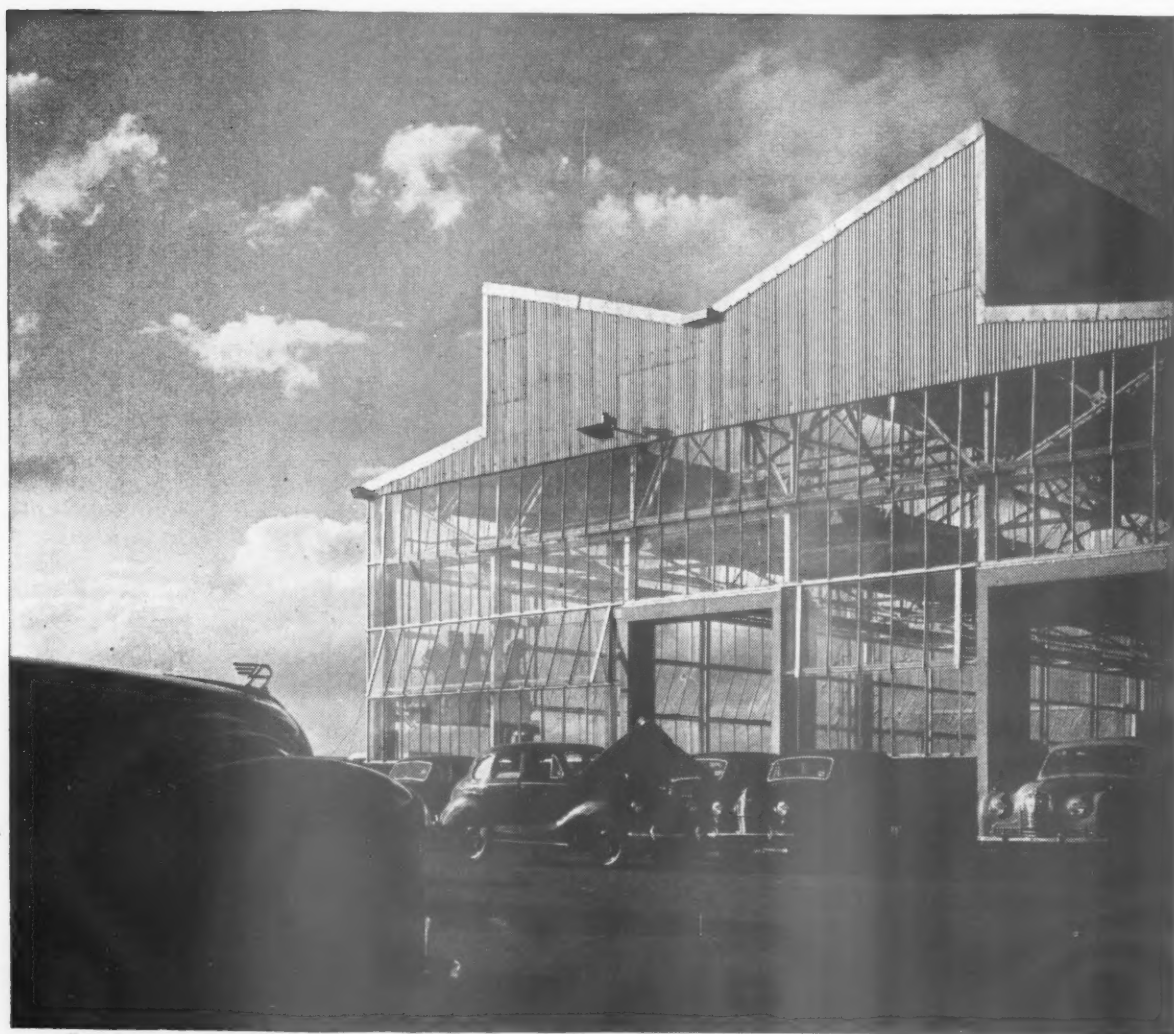
Harvey

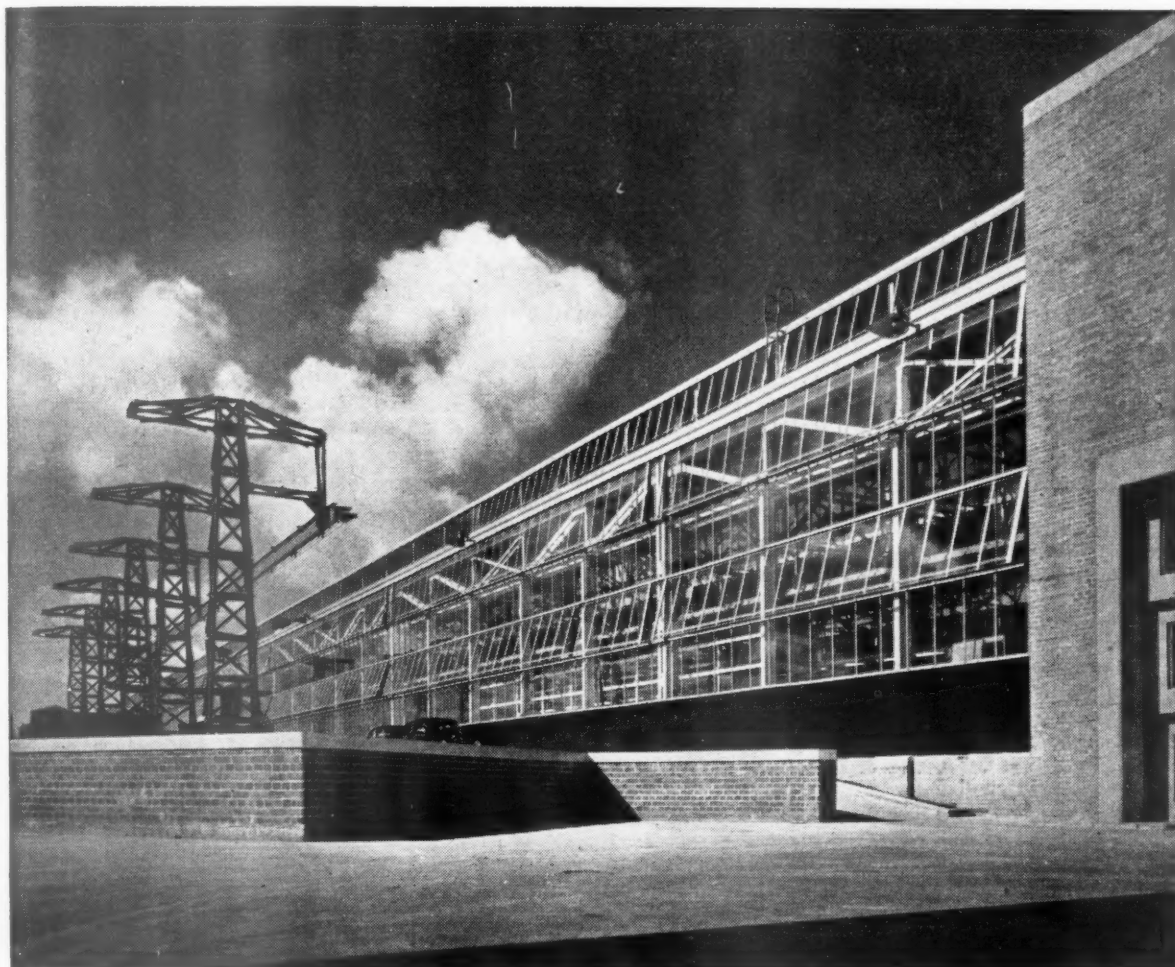
G.A. Harvey & Co. (London) Ltd.
Woolwich Rd. London, S.E.7

GLASS WALLS *in the new Austin Extensions...*

A FRESH EXAMPLE OF THE GRACE AND EFFICIENCY OF ALUMINEX PATENT GLAZING

Our pictures show Aluminex Patent Glazing to advantage and the æsthetic effect of the 900 ft. glass wall is a tribute to architect C. Howard Crane's use of this medium in his new Car Assembly Building at the Austin Factory, Longbridge. Strong enough to resist the full force of Atlantic gales, durable enough, like Piccadilly's Eros, to stand the wear of years, light enough to be handled with ease, clean cut and attractive in its lines — Aluminex is a working material for architects to conjure with.





WALLS OF GLASS

The 900 × 20ft. wall of glass can be dismantled and re-assembled when the time comes for further extensions. This is only one of the important advantages offered by Aluminex.

TELEFLEX GEARING

Opening lights 5ft. deep by 58ft. run into two tiers along the whole length of the building. Each pair of adjacent lights is easily operated by Teleflex gear from one manual control at floor level, 116ft. of sidewall opening in 15 seconds. Teleflex—a new development in cable gearing—was originally used for turret operation on bombers and battleships in the last war. It is a classic example of how the swords of war become the ploughshares of industry.

VERTICAL MONITOR LIGHTS

The vertical monitor lights in the roof are arranged so as to give even

daylighting throughout the building and contain continuous opening lights exactly similar to those in the sidewall.

56,000 SQUARE FEET OF GLASS

Both the sidewalls and the monitors are glazed with 32 ounce clear sheet glass, which, combined with the delicate aluminium tracery of Aluminex Patent Glazing, has produced a delightful effect of airiness and spaciousness. In all, 56,000 square feet of glass were used in the cladding of this building.

USE OF ALUMINEX WEATHERING MEMBERS

Only Aluminex can produce the clean effect at the junction of the trim of glass in the sidewall. These firm modern lines are due to the Aluminex horizontal weathering members.

In Steelworks—Power and Railway Stations—Aircraft Hangars—Hospitals—Art Galleries—Aluminex displays its versatility and provides the architect with a potent instrument. Spaciousness, beauty, ease of construction and economy, all reside in Aluminex.

THE ALUMINEX DIVISION OF

WILLIAMS & WILLIAMS LTD

RELIANCE WORKS · CHESTER

Architect and Engineer: C. HOWARD CRANE, A.I.A. Main Contractors: W. J. WHITTALL & SON LTD

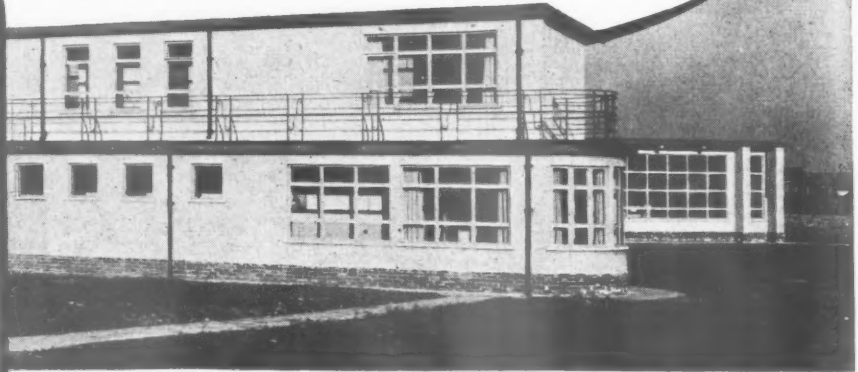
DECORATIVE FINISHES

*for cement, concrete, brick, stone, asbestos,
and allied building materials*

VALLEY ROAD INFANTS' SCHOOL, SUNDERLAND.

ARCHITECT: Harvey C. Bishop, A.R.I.B.A.
Borough Architect, County Borough of Sunderland.
CONTRACTORS: Messrs. Appleby (Builders) Ltd., Newcastle-on-Tyne.

The exterior cement rendering incorporating Sealantone Liquid Colour Cream shade in White Cement, and the floors laid incorporating Sealantone Liquid Colour Buff shade.



SEALOCRETE • SEALANTONE • SEALANTEX

provide the Answer

SEALANTONE LIQUID COLOURS

For incorporation in the final coat of cement renderings or cement and concrete floors. In many colours that are not only permanent and dustproof but they actually improve the strength and general characteristics of all cement, concrete renderings, roughcast, etc., in which they are incorporated.



SEALOCRETE LIQUID STAIN

Colours and protects asbestos, roofing tiles, brickwork, cement and concrete floors, precast work, etc. Not only does it impart a pleasing colourful effect, it also seals as it stains.



SEALANTEX SMOOTH FINISH

A new hard matt finish for interior decoration of cement, concrete renderings, plaster, etc. No saponifying, softening or discolouring through reaction with the lime in the cement. It has excellent covering capacity and is available in a number of pastel shades.



SEALANTEX LIQUID STONE COMPOUND

A decorative stone-like preparation for use on stone, asbestos, cement, concrete, brickwork, roughcast, etc., that can be applied internally, externally, or even on underwater surfaces such as bathing or paddling pools where the non-slip surface is an additional advantage. Available in many permanent colours.



1952
MAY 5-16
CASTLE BROMWICH
BIRMINGHAM

SEE OUR EXHIBIT

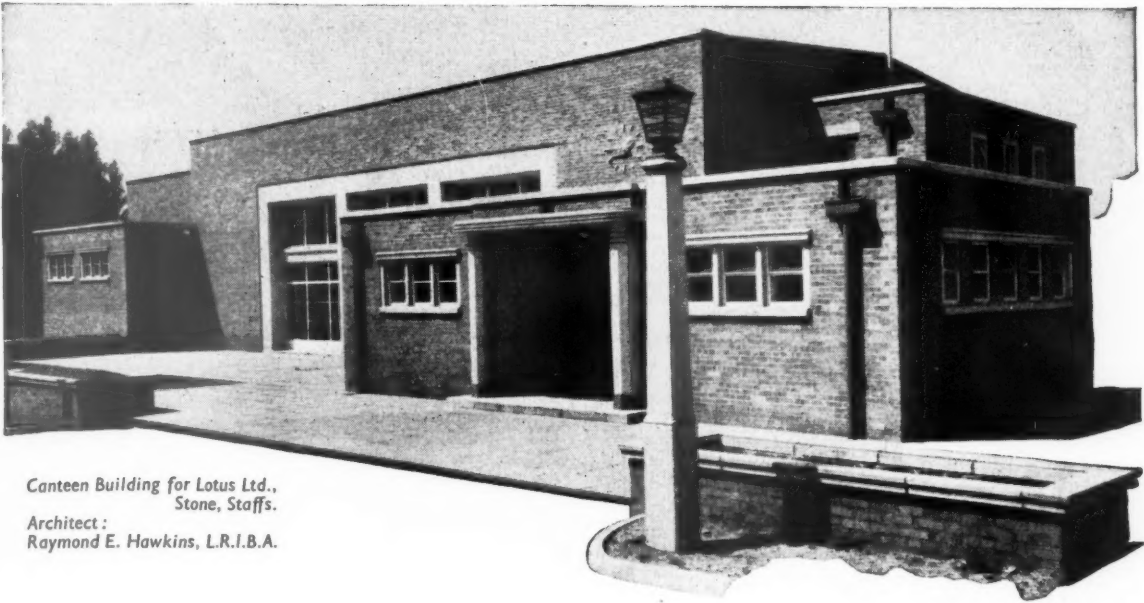
STAND No. B614

SEALOCRETE PRODUCTS LIMITED

ATLANTIC WORKS, HYTHE ROAD, LONDON, N.W.10

Phone: LADbroke 0015/6/7

Grams & Cables: "Exploiture," Wesphone, London



Canteen Building for Lotus Ltd.,
Stone, Staffs.
Architect:
Raymond E. Hawkins, L.R.I.B.A.

Empire Stone WAS USED IN THIS BUILDING



Empire Stone Company Limited

THANET HOUSE, 231 STRAND, LONDON, W.C.2
BERKELEY HOUSE, BIRMINGHAM, 16
NARBOROUGH, NR. LEICESTER
324 DEANSGATE, MANCHESTER, 3



The Ctesiphon Arch

Famous Roofs

One of the oldest roofs in the world, the great 6th century brick vault of the Ctesiphon Palace still survives. Roofs like this, unsupported by pillars and made of rammed earth and reeds, are employed to this day in Persian native architecture.

The history of roofing is the story of man's endeavours to build a permanent shelter against the elements — with successively more suitable materials as they become available.

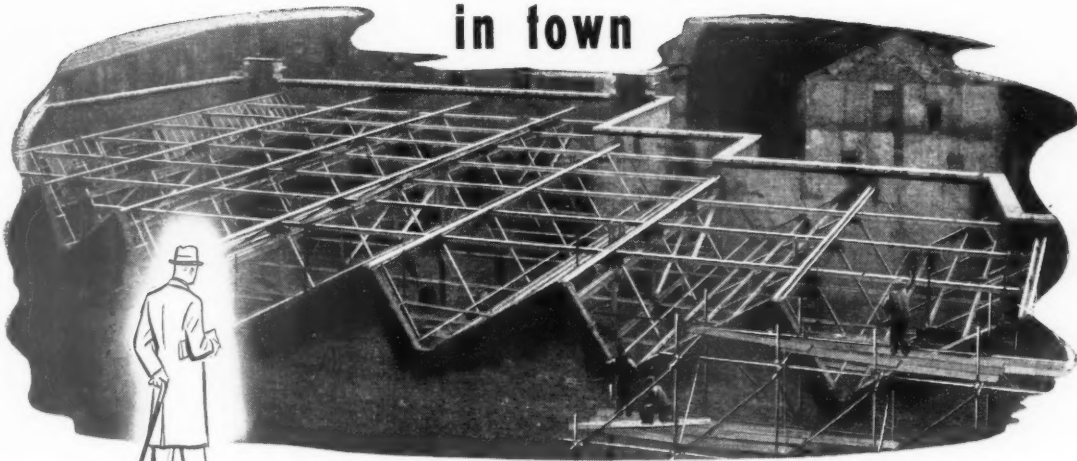
The roof of the Ctesiphon is a fine example of great achievement in this story, for there the choice of design and the right materials has stood the test of time.

Today it is just as necessary that the most permanent roof covering should be specified from the most suitable materials available. That is why "CORROPLAST" is chosen wherever corrugated sheeting is wanted — and wanted to last.

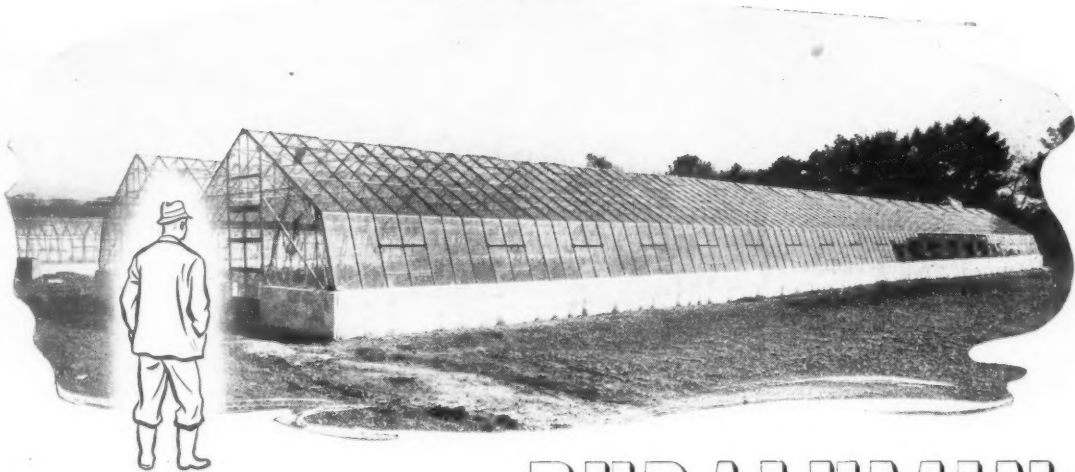
CORROPLAST

Manufactured by HOLOPLAST LIMITED • Sales Office: 116 Victoria Street • London S.W.1 • Telephone: VICTORIA 9354/7 & 9981
Head Office and Works: New Hythe, Near Maidstone, Kent

LOOK in town



or country



...**YOU SEE** structural **DURALUMIN**

REGD. TRADE MARK

Many advantages may be obtained by the use of Duralumin for structural work. It is as strong as steel but only one-third the weight. It does not rust, and maintenance costs are low. Handling costs are much reduced, and it is popular with erectors. It is particularly efficient where large spans are involved. Fabrication processes present no greater difficulties than those encountered in respect of other metals. The best results are obtained by using sections which

have been designed and "tailor-made" for the particular job, as opposed to the planning of a structure based on a limited range of standard steel sections.

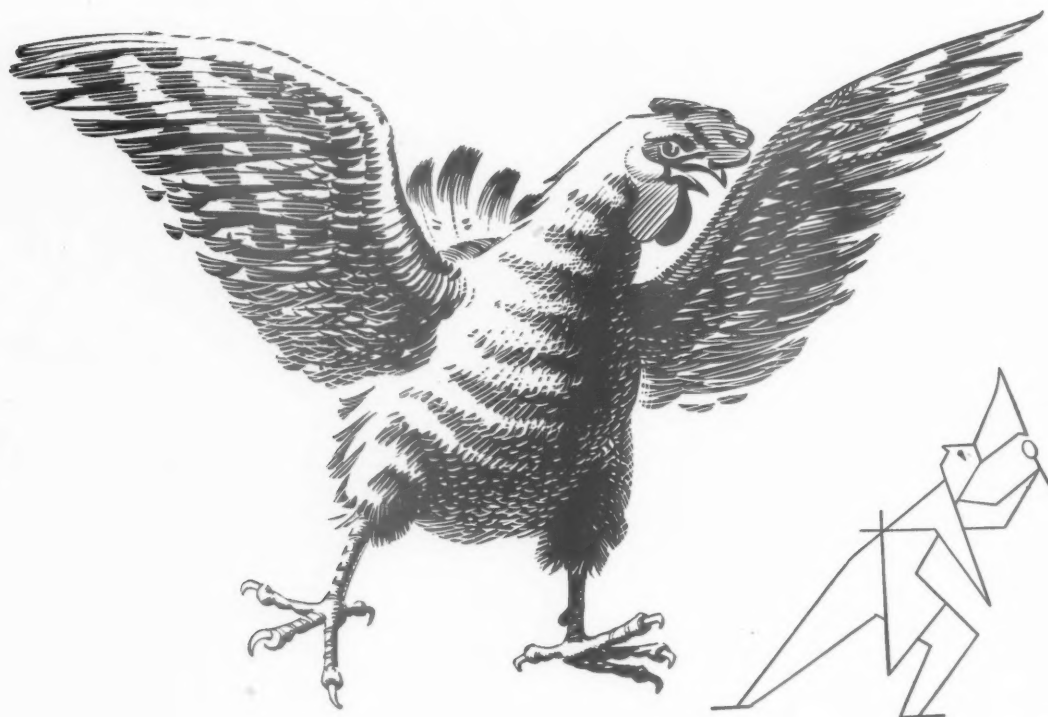
Whilst unfortunately supplies are not as readily available as we would wish, nevertheless our Development Department will be glad to advise you now on the use of aluminium alloys for structural work, so that your plans may be ready when present restrictions are lifted.

An improved method, without "Duralumin"
— probably isn't!

JAMES BOOTH & COMPANY LIMITED



ARGYLE STREET WORKS • BIRMINGHAM • 7



Some birds come in braces; but to the poor harassed chef they usually descend in flocks, coveys, clutches and other large consignments.

We welcome all large-scale cooking problems and can put a specialist service at your disposal to design and equip completely every type of kitchen.

If we can be of help to you in any way please write to us or phone.

Radiation

(LARGE COOKING EQUIPMENT) LTD

Warrington, Lanes.

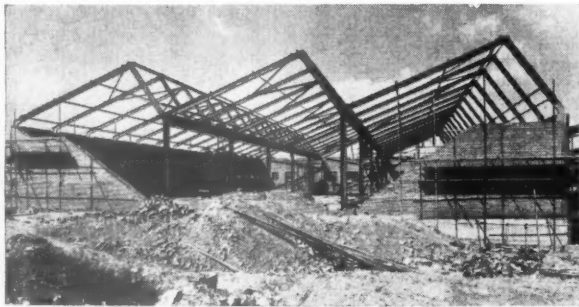
Warrington 1172

7 Stratford Place, London, W.1

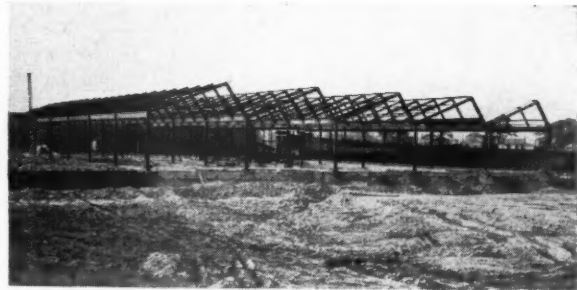
MAYfair 6462



Welding in Progress.



Canteen at Barnsley for Brook Motors Ltd.



New Factory at Barnsley for Brook Motors Ltd.

specialists in the design
fabrication and erection of steelwork



Established 1850

James Austin & Sons Ltd (DEWSBURY)

THORNHILL IRON & STEEL WORKS · DEWSBURY

Telephone: 1750 (5 lines)

Telegrams: "Austins," Dewsbury

Private Sidings: British Railways, Thornhill

Associated Companies: ASTLEY BROOK & CO. LTD., ST. GEORGE'S WORKS, HUDDERSFIELD, MANUFACTURERS OF "A.B.C. GARAGES AND GREENHOUSES,"
A. J. RILEY & SON LTD., VICTORIA WORKS, BATLEY, BOILER MAKERS, WELDING ENGINEERS.

How Sadia flexibility can cut house conversion costs

The wide range of Sadia products gives unusual freedom to the architect in planning hot water systems.

SADIA

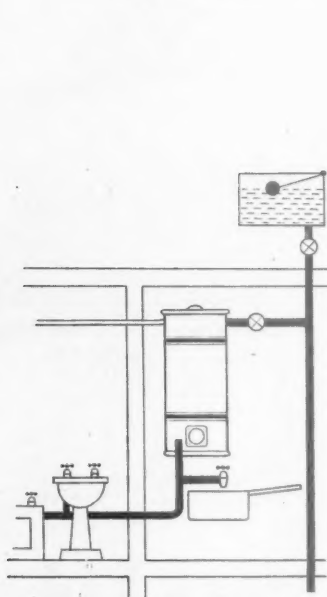
HOT WATER BY
ELECTRICITY

SADIA WATER HEATERS are particularly appropriate for house conversions. They do not require a chimney or flue and can be fitted in any convenient space with a minimum of structural alteration. The Sadia range includes single-point units for the sink or wash basin, multi-point pressure type units, and models with built-in cold water storage tanks.

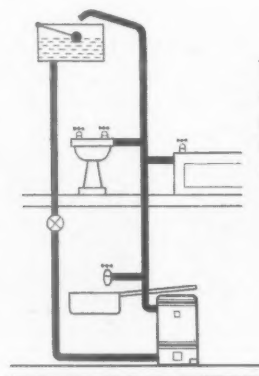
Aidas Electric Ltd., the makers of Sadia water heaters, are always glad to give specialist advice to architects when they are preparing plans for conversion or for new building.

AIDAS ELECTRIC LIMITED

Sadia Works, Rowdell Road, Northolt, Middlesex. Scottish Agents: W. Brown & Co. (Engineers) Ltd., 89, Douglas Street, Glasgow C2. Manufactured in South Africa by: Sadia Water Heaters (Pty) Ltd., 3-5, Newton Street, Village Main, Johannesburg.

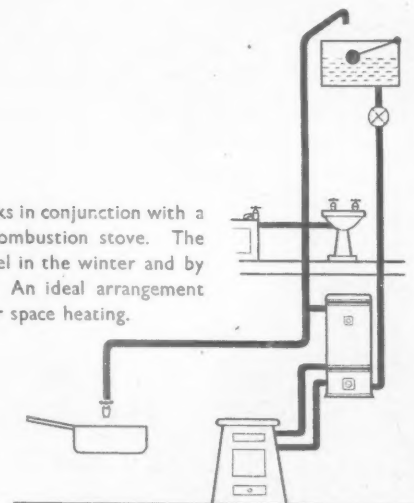


Sadia water heaters with built-in cold water storage tanks save plumbing work in blocks of flats. They can be fed from one common down service pipe and do not require vent or expansion pipes. This system can be used with all-electric or coal-electric models.

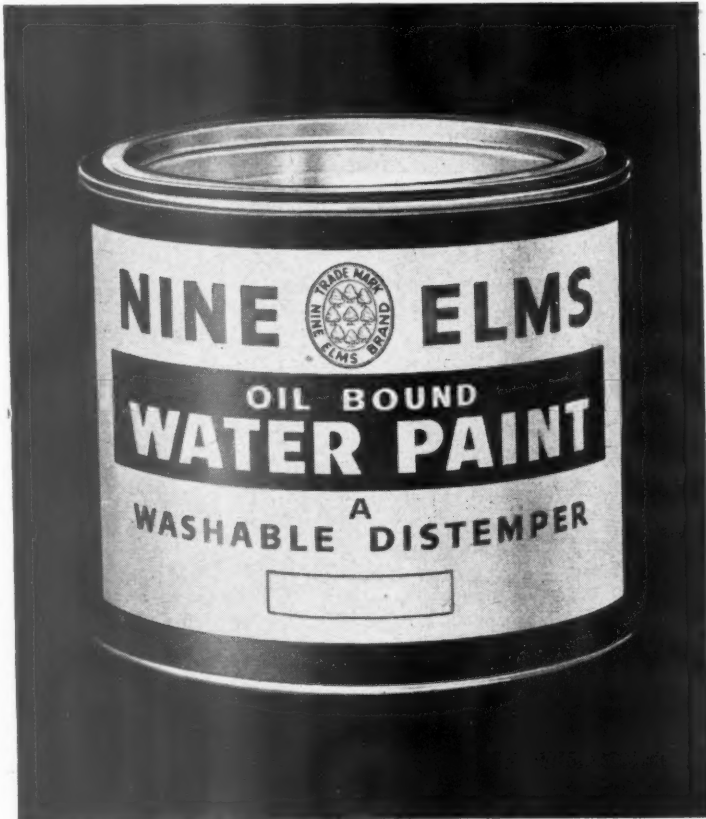


The type UDB Sadia will tuck away under the draining-board. This economical all-electric model provides constant hot water at the sink and also at the bathroom basin. A switch brings a booster unit into operation when baths are required.

The coal-electric Sadia works in conjunction with a fire-back boiler or slow combustion stove. The water is heated by solid fuel in the winter and by electricity in the summer. An ideal arrangement where solid fuel is used for space heating.



GREAT NAMES



*In paste form and easily handled; for use on
plaster, stone, wood, or paper. In white and ten colours
all of which are readily intermixable*

T. & W. Farmiloe's
NINE ELMS
OIL BOUND WATER PAINT

A TRADE MARK AS



GOOD AS A BOND



Sir Christopher Wren

Names are great only because of the achievement that lies behind them. Christopher Wren had unique opportunities and made a masterly use of them as artist and craftsman. T. & W. Farmiloe have also mastered an art, and for more than a century all their endeavours have been towards supplying better materials to the decorating trade. NINE ELMS OIL-BOUND WATER PAINT is in this tradition of excellence—a washable distemper with an established reputation.

COLT *Canadian Cedar Wood* SHINGLES

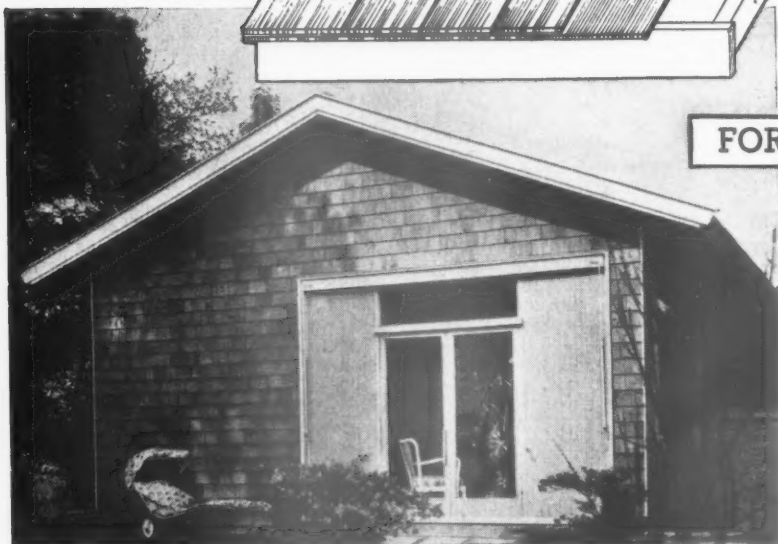
FOR ROOFS

COLT Cedar Shingles weather to a beautiful silver-grey and are a highly durable roofing material which is 21 times more waterproof than clay tiles. Lightness in weight (only 144 lbs. per square) permits a very considerable saving to be effected in structural steel and timber, not only in the roof but over the whole of the building.



LEAGRAVE COUNTY
PRIMARY SCHOOLS,
Luton, Beds.
Architect: Howard V. Lobb,
F.R.I.B.A.

FOR WALLS



A HOUSE IN SURREY.

Architects: Tayler & Green, F.R.I.B.A.

Shingles are licence free — available from stock, and competitive in price.

Experts fixers are available to undertake contracts throughout the country.

Warmth, colour, and pleasing appearance are equalled by the high insulation value of cedar shingles which is 9 times greater than brickwork. Great economies can thus be made in structural materials without reduction of standards of weathering and insulation.

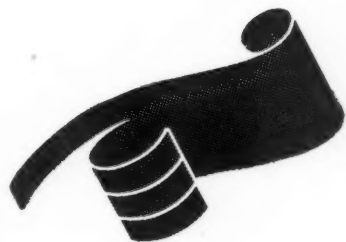


W. H. COLT (LONDON) LTD. SURBITON SURREY



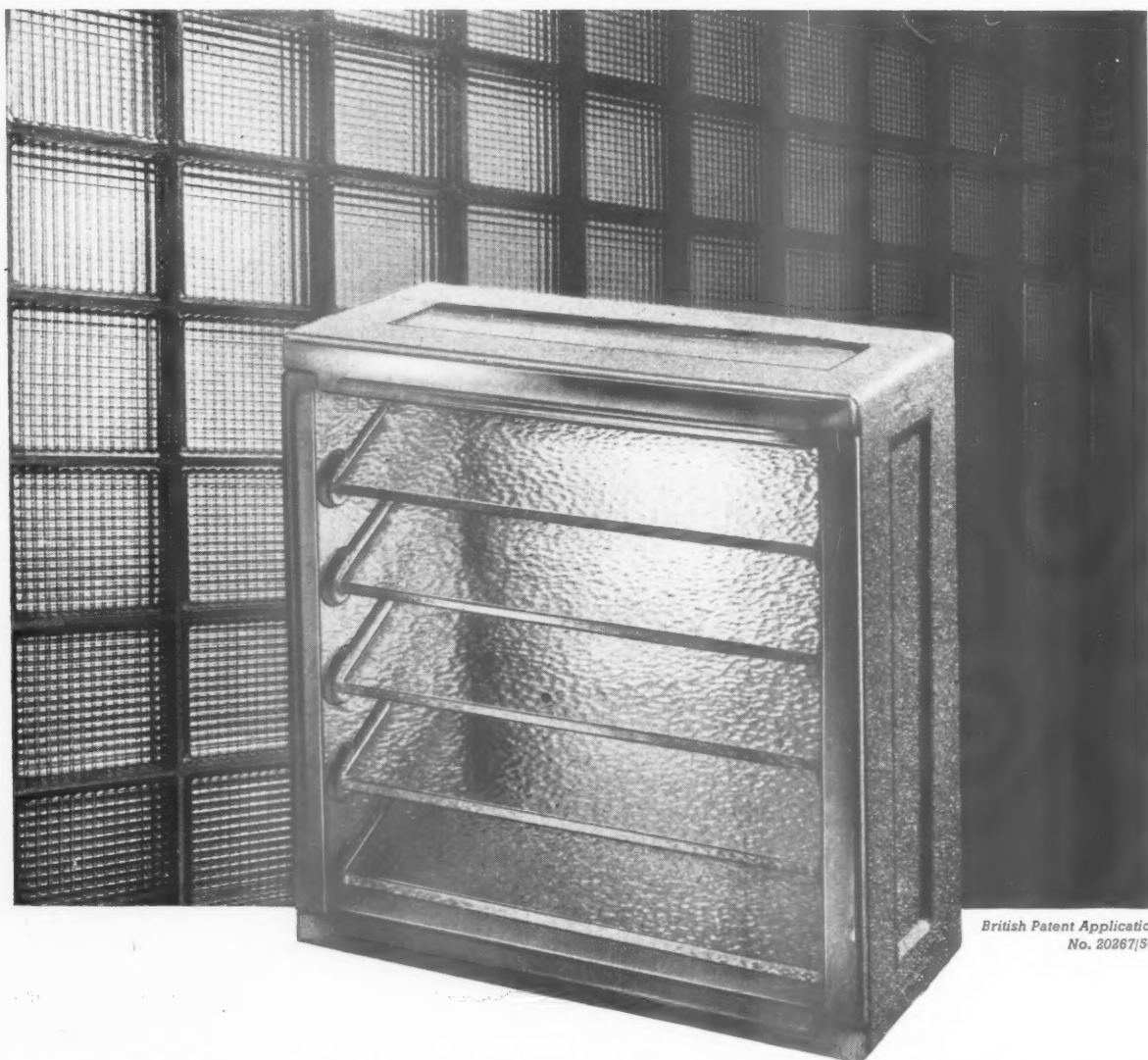
In modern building and construction, at a score of points from foundations to roof, the integral waterproofness, toughness, pliability and easy handling of IBECO are providing a practical low-cost answer to lining, proofing and insulating problems. It is fast becoming one of the indispensable "tools of the trade".

IBECO



COMPLETELY WATERPROOF BUILDING PAPER

MADE BY C. DAVIDSON & SONS LTD • MUGIEMOSS • ABERDEENSHIRE



British Patent Application
No. 20267/50.

"INSULIGHT" VENTILATOR BLOCKS NOW AVAILABLE

All glass construction, fully louvred, $7\frac{3}{4}" \times 7\frac{3}{4}" \times 3\frac{7}{8}"$. A notable addition to the range of

Consult the Technical Sales and Service Department at St. Helens, Lancs., or Selwyn House, Cleveland Row, St. James's, London, S.W.1, Telephones: St. Helens 4001, Whitehall 5672-6.

"INSULIGHT"

HOLLOW GLASS BLOCKS



PILKINGTON BROTHERS LIMITED

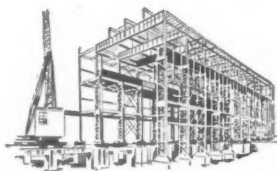
Supplies are available through the usual trade channels. "INSULIGHT" is the British registered trade mark of Pilkington Brothers Limited



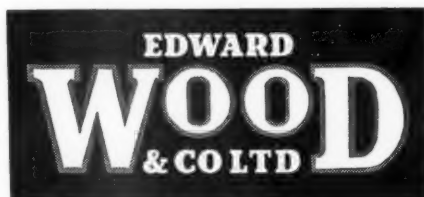
MUS MINUTUS. Because of his light weight, this smallest of British mammals is able to build where few of his enemies could find lodgement and constructs his nest of grass as high as the tallest growing corn will allow.

—but to build in **STEEL**

is no job for small people. Very great resources are called for, in designing, in fabrication and in erection. These resources exist to the fullest extent within our organisation at Trafford Park and have found expression in many of the largest buildings in the British Empire ; our advisory department is fully at your disposal.



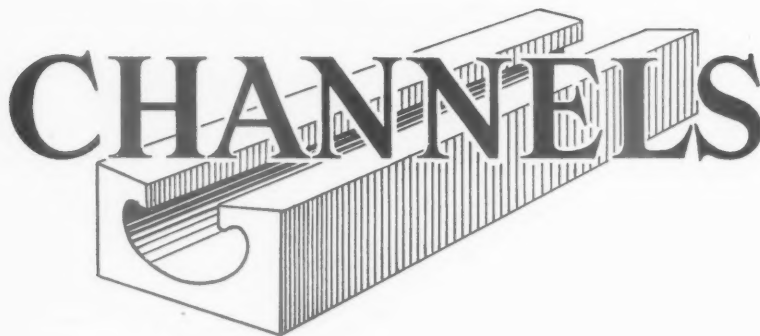
AGECROFT
POWER STATION



C O N S T R U C T I O N A L E N G I N E E R S

Registered Office & Works: **MANCHESTER 17** Tel: TRAfford Park 2341 (10 lines)

London Office: 68 Victoria St., S.W.1. Tel: Victoria 1331/2. Technical Offices: BIRMINGHAM, LOUGHBOROUGH



AS THE ORIGINAL PIONEERS, BROADS STILL HOLD
THE LARGEST AND MOST VARIED STOCKS OF WHITE
AND BROWN GLAZED CHANNELS AND CHANNEL FITTINGS
SUITABLE FOR THE REQUIREMENTS OF CHANNEL
SCHEMES HOWEVER COMPLICATED OR SIMPLE



IN LABORATORIES, KITCHENS, LAVATORIES,
PLANT ROOMS, LAUNDRIES, WORKSHOPS AND
BOILER HOUSES ETC.



BROADS UNIQUE SERVICE IN CHANNELS INCLUDES
CO-OPERATION BY FULLY TECHNICAL STAFF TO
ASSIST AND ADVISE IN THE SELECTION OF
CHANNELLING TO SUIT INDIVIDUAL REQUIREMENTS

BROADs

FULLY ILLUSTRATED & DIMENSIONED CATALOGUE SENT UPON REQUEST

BROAD & CO. LTD. • 4 SOUTH WHARF • PADDINGTON • W2

TELEPHONE: PADDINGTON 7061 (20 LINES)

For all painting programmes **INTERLIGHT...**

APPLIED
DIRECT
TO NEW
PLASTER

FOR
INDOOR
AND
OUTDOOR
USE

CAN USE
OVER
DISTEMPER
OR PAINTED
WORK

THREE
FINISHES
FLAT
EGGSHELL
GLAZE

TOUCH
- DRY
IN ONE
HOUR

RESISTS
FUNGI
ACIDS
ALKALIS

PLEASANT
SMELL

YOU ARE INVITED

*to write for the leaflet giving
full details of "Interlight"*

Registered



Trade Mark

"Interlight", the new emulsion paint performs well on a variety of surfaces—plaster, hardboard, asbestos, concrete, brickwork, etc., and it has the durability of good oil paint. It is easy and quick to apply with a six inch brush.

Ask for a sample.

International Paints Ltd

GROSVENOR GARDENS HOUSE, LONDON, S.W.1.

Telephone: VICtoria 3161 (10 lines)

ALSO AT GLASGOW

• NEWCASTLE

• LIVERPOOL

• CARDIFF

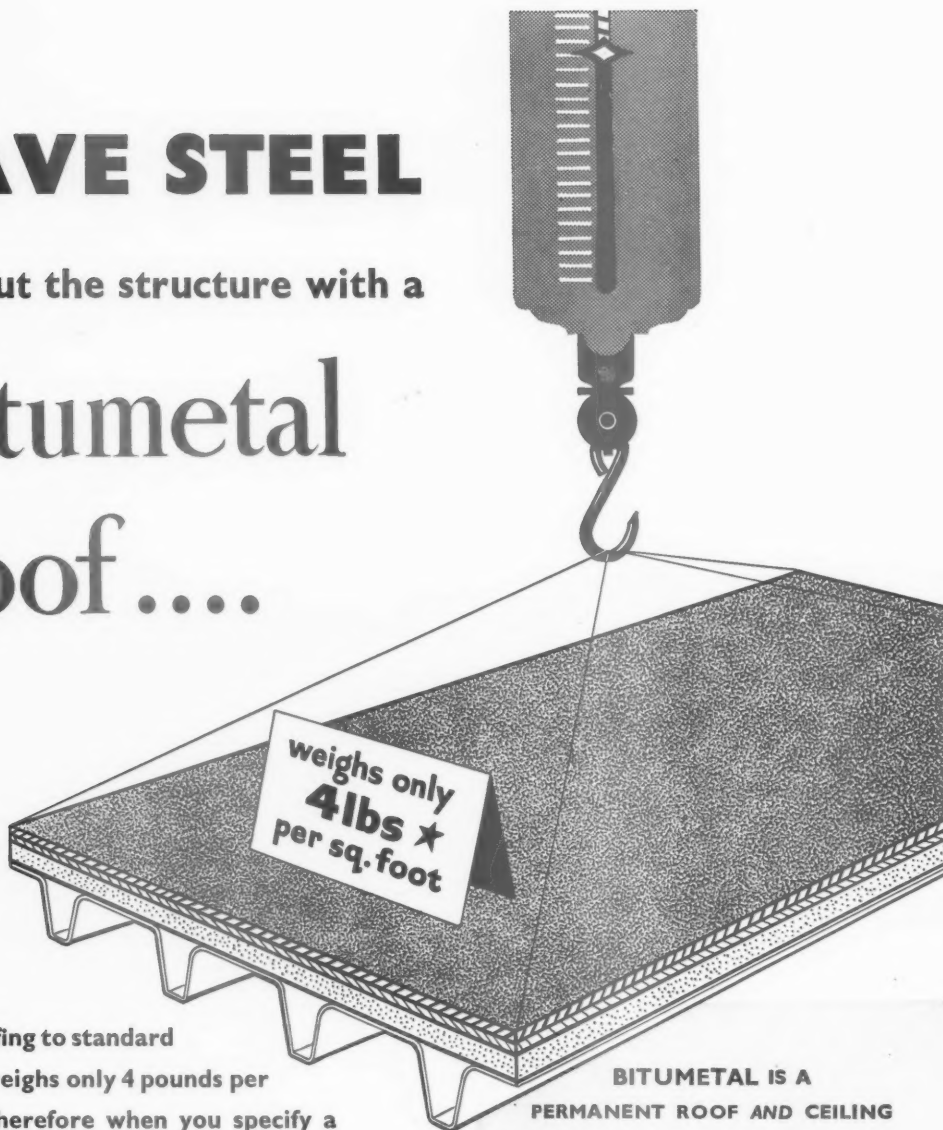
• SOUTHAMPTON

• WEST HARTLEPOOL, ETC.

SAVE STEEL

throughout the structure with a

Bitumetal Roof....



Bitumetal roofing to standard specification weighs only 4 pounds per square foot, therefore when you specify a Bitumetal roof you materially reduce the amount of steel required to support the roof.

The country is desperately short of steel, and as the armament drive gets into full swing, many building structures may be held in abeyance because of their high steel specification. Remember this, and specify Briggs BITUMETAL Roofing wherever you can.

BITUMETAL IS A

PERMANENT ROOF AND CEILING built up from aluminium decking, insulation board, and bitumen roofing. It is adaptable for flat, pitched, curved, or vertical construction. It requires no maintenance. It cannot deteriorate.

★ The heaviest Standard Specification weighs up to 8 lbs. per sq. ft.

Full technical data will gladly be supplied on request to any of the undernoted offices.

William Briggs & Sons Ltd

Vauxhall Grove, LONDON, S.W.8 Regd. Office: DUNDEE

ABERDEEN
Bedford Road

EDINBURGH
Murrayfield Station

BRISTOL 3
Stillhouse Lane, Bedminster

LIVERPOOL
Kirkby Trading Estate

LEICESTER
Belgrave Road Station

GLASGOW C.3
200 Old Dumbarton Road

NORWICH
Trowse Millgate

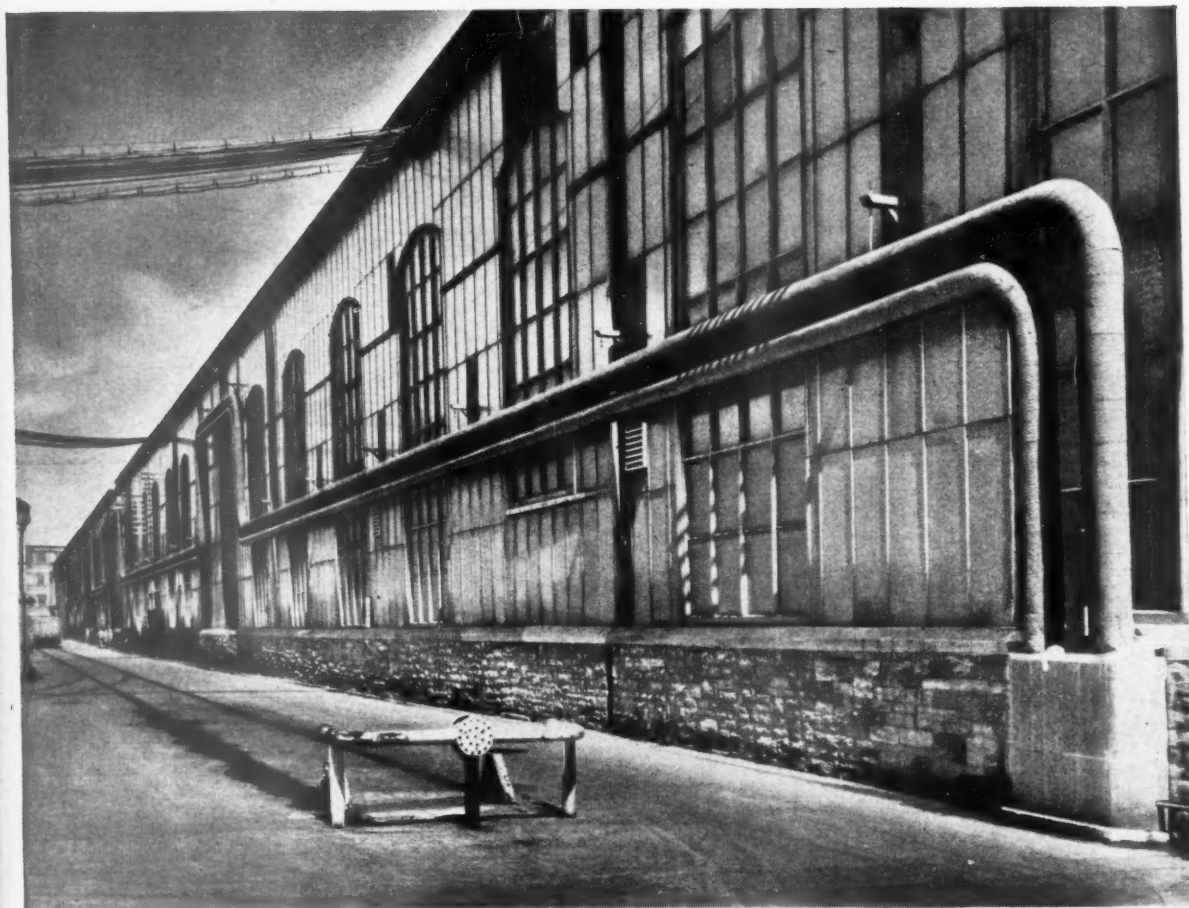
9



Su
ins
Ba
Me

SUL
Aer
KAT

SULZER



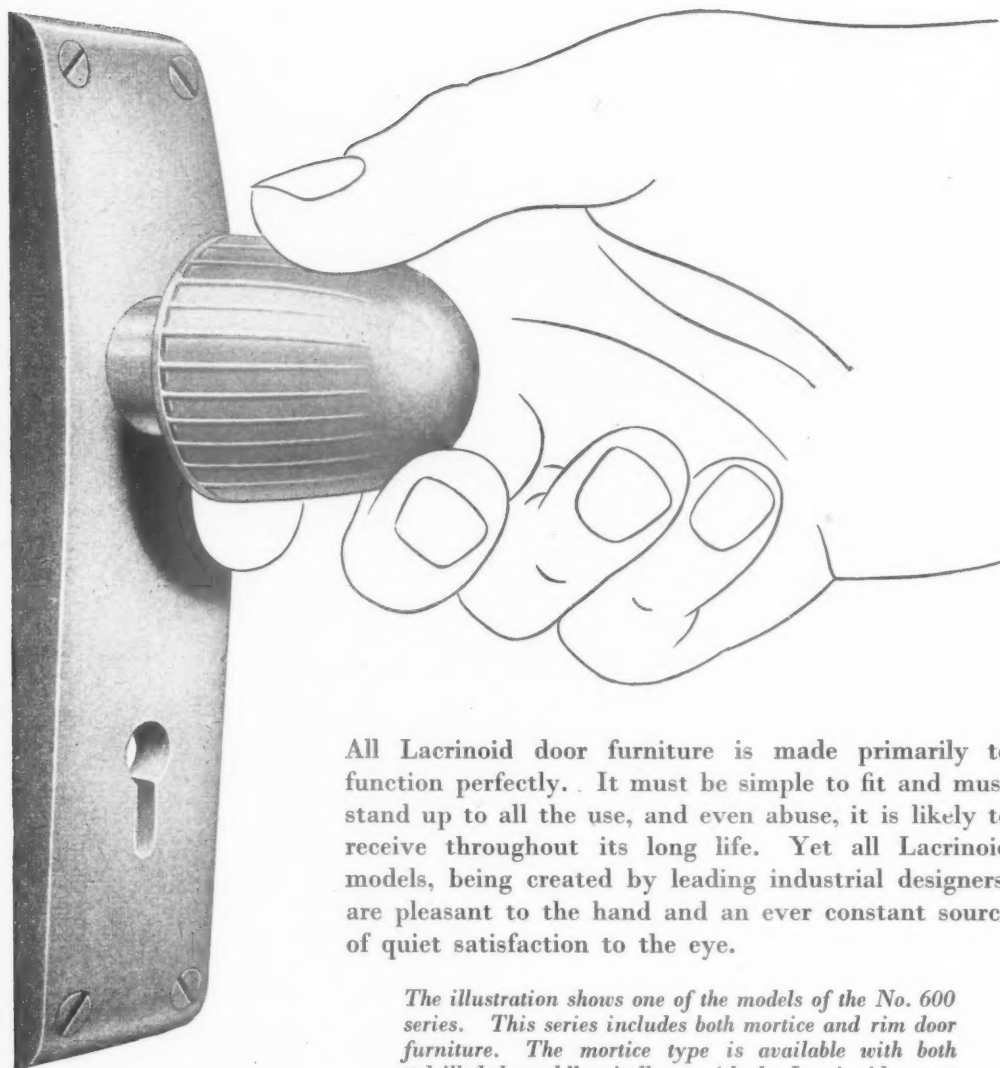
Sulzer Heating Mains
Installed at the
Barrow-in-Furness Works of
Messrs. Vickers-Armstrongs Ltd.

AIR CONDITIONING
VENTILATION
PANEL WARMING
SPACE HEATING
ELECTRODE BOILERS
INDUSTRIAL PIPING
ALL-WELDED STEEL-
PIPING INSTALLATIONS

SULZER BROS (LONDON) LTD, 31, BEDFORD SQUARE, LONDON, W.C1

SULZER BROTHERS LIMITED HAVE OFFICES AT:— WINTERTHUR — PARIS — NEW YORK — MADRID — CAIRO — RIO DE JANEIRO — BUENOS AIRES — SHANGHAI — KOBE.
Agencies at:— BRUSSELS — MILAN — AMSTERDAM — LISBON — COPENHAGEN — OSLO — STOCKHOLM — HELSINKI — ATHENS — ISTANBUL — ALGIERS — JOHANNESBURG — HAIFA — BOMBAY
KARACHI — COLOMBO — SINGAPORE — BANGKOK — MANILA — MONTREAL — MEXICO CITY — BOGOTA — CARACAS — SANTIAGO (CHILE) — LIMA — LA PAZ — SYDNEY — MELBOURNE — WELLINGTON

As pleasant to the hand as to the eye



All Lacrinoid door furniture is made primarily to function perfectly. It must be simple to fit and must stand up to all the use, and even abuse, it is likely to receive throughout its long life. Yet all Lacrinoid models, being created by leading industrial designers, are pleasant to the hand and an ever constant source of quiet satisfaction to the eye.

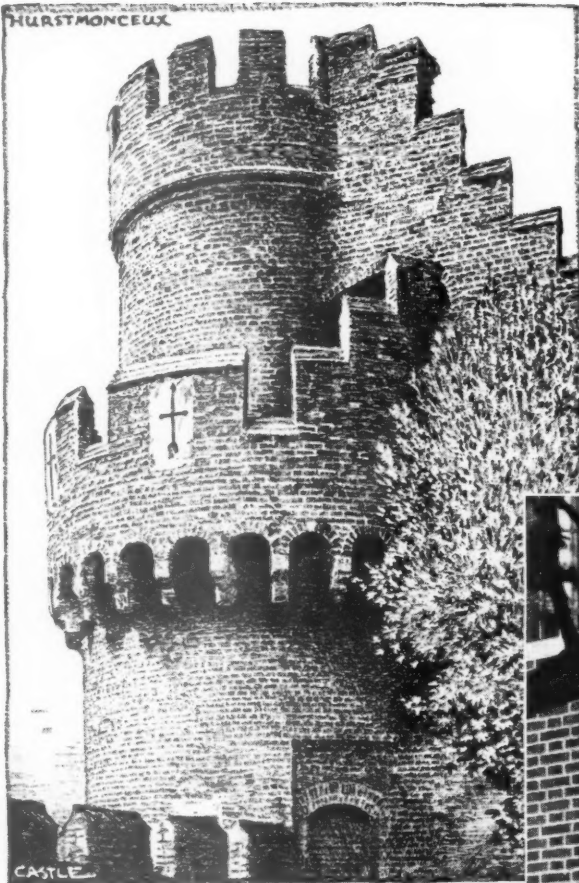
The illustration shows one of the models of the No. 600 series. This series includes both mortice and rim door furniture. The mortice type is available with both "drilled through" spindle or with the Lacrinoid patent "floating" spindle.

LACRINOID

TRADE MARK

A selection of Lacrinoid door furniture is now on display at the Building Centre, 21 Store Street, W.C.1

LACRINOID PRODUCTS LTD • GIDEA PARK • ESSEX • TELEPHONE: HORNCHURCH 2981



RESISTANCE

*to Time
and Weather*

The passage of years, with its procession of summers and winters, may mellow the tone of brickwork, but a colourful texture remains with it always.

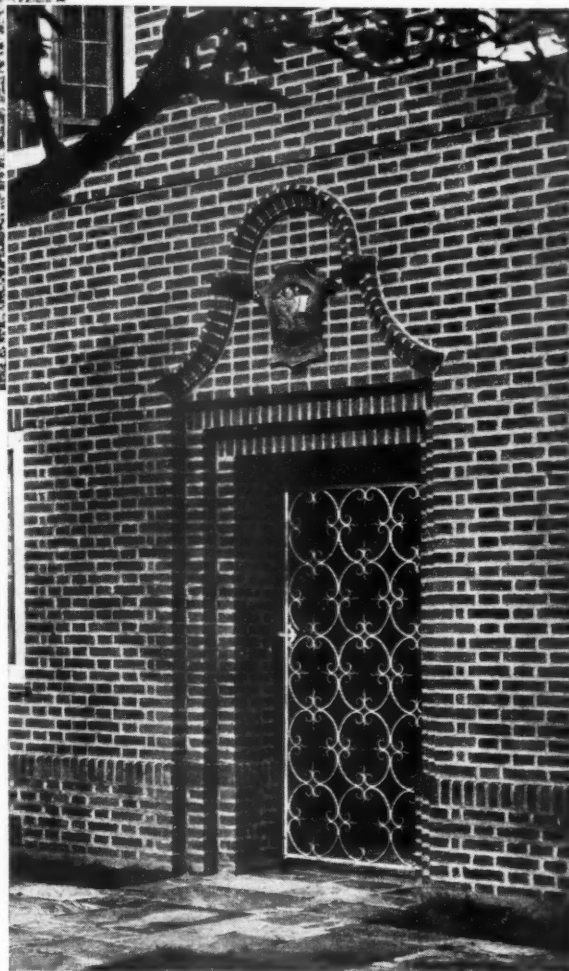
Treasured old buildings throughout the country are a constant reminder that Brick is the ideal material for the British climate.

Present-day bricks are superior to those used by earlier generations. Improvements in the processing and burning of clay have established still higher and more uniform standards of quality.

To-day, more than ever before, you may rely upon the unrivalled durability and lasting beauty of Brick.

BRICK

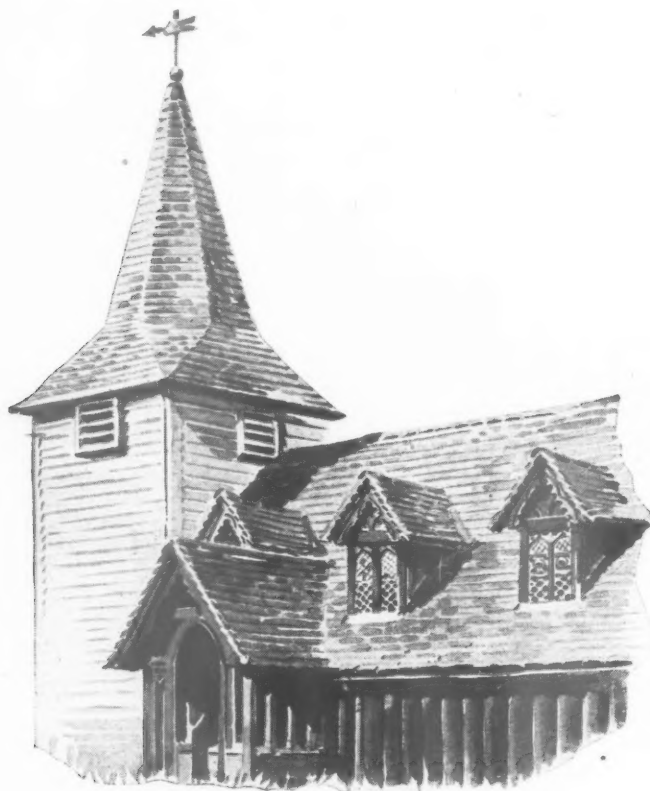
gives a Permanent Finish



*A doorway. Fairholme Estate, Bedford, Middlesex.
Architect : T. Cecil Howitt, F.R.I.B.A.*

Issued by

The National Federation of Clay Industries, London, W.C.1



A Worthy Heritage

For 1,000 years the cleft oak walls of the Greenstead timber built church have withstood the English climate.* With shingled steeple and weatherboarded tower it stands, a monument in Essex to the durability of wood. Our Saxon forefathers evidently knew good timber.

For over two centuries in this same Essex, Sadds have carried on this traditional understanding of timber — of native hardwoods, of imported softwoods and hardwoods and their conversion into joinery products.

Softwood stocks are improving. We actively associate ourselves with the Timber Development Association in its campaign for more timber, for timber is the raw material without which man would indeed be poor. You can't do without wood.

JOHN SADD & SONS LTD.

for fine timber and fine joinery

STATION ROAD WHARF 1,

MALDON ESSEX

Telephone : Maldon 131

Wood windows, panel and flush doors, kitchen units, staircases, panelling, joinery to Architects' detail.

London Office and Showrooms : Aldwych House, London, W.C.2. Telephone : CHAncery 7214

**WHITE
LEAD
PAINT
LASTS**



**... it's cheaper
because it lasts
.....**

SPECIFY

MAGNET

HARD GLOSS

WHITE LEAD BASE PAINT

Magnet costs more in the tin—but less on the job.

It goes further and lasts longer. Specify Magnet for all *outdoor* painting. You have a choice of 23 intermixable colours, all with a fine hard gloss finish.

For best results lead priming paints should *always* be used. Associated Lead are specialists in the manufacture of lead pigments and lead paints including Cookson's Crescent Genuine White Lead Paint and Ibex White Lead Base Oil Paint.

ASSOCIATED LEAD MANUFACTURERS LIMITED

IBEX HOUSE, MINORIES, LONDON EC3

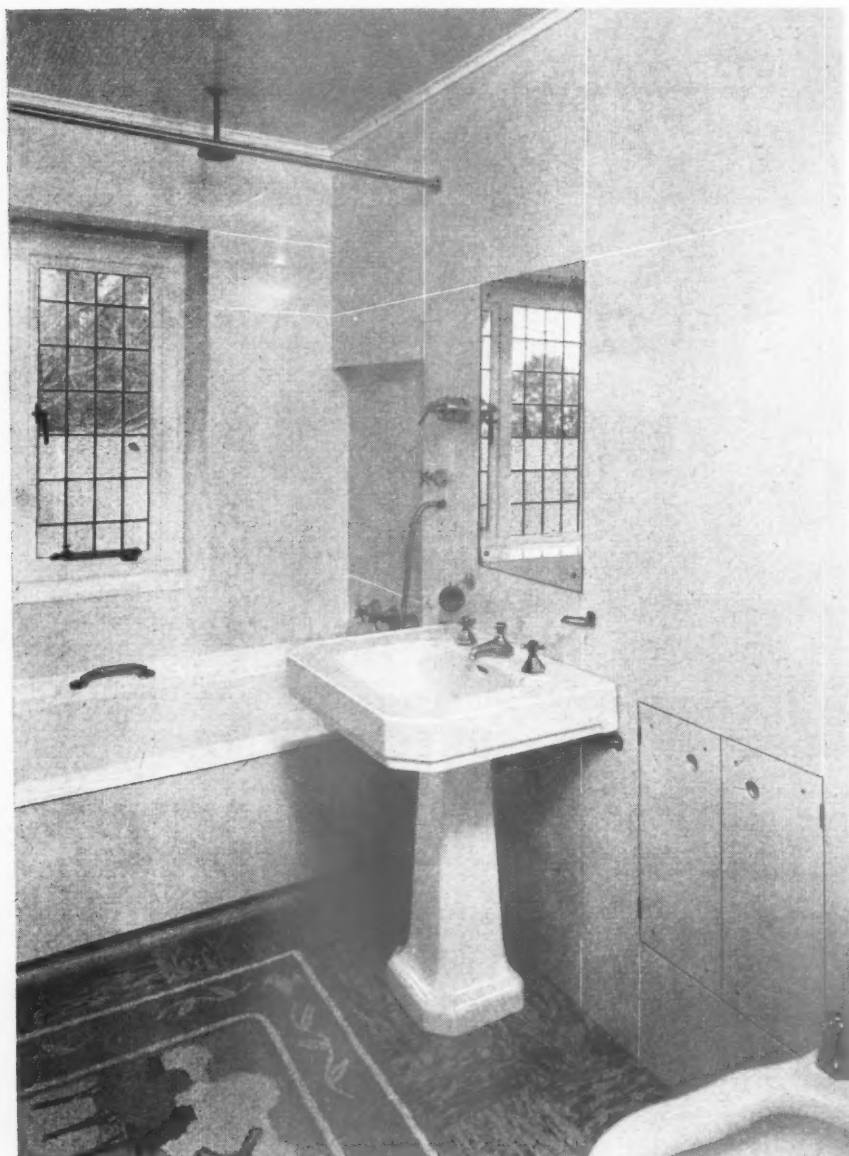
CRESCENT HOUSE, NEWCASTLE

LEAD WORKS LANE, CHESTER



EXPORT ENQUIRIES TO: THE ASSOCIATED LEAD MANUFACTURERS EXPORT CO. LTD., IBEX HOUSE, MINORIES, LONDON EC3

· ATTRACTIVE · CLEAN · PERMANENT



**GLASS
FACING**
in
'VITROLITE'
makes a
Bathroom
IMMACULATE

Bathroom in Primrose 'Vitrolite'
*Points of interest: built-in cup-
board at side of lavatory basin,
flush mirror, recess over end of
bath, faced reveals to windows.*

*Builders: Messrs. W. E. Wright
(Eltham) Ltd.*

With walls as lustrous and impervious as bath and basin, a bathroom faced with 'Vitrolite' is not only a joy to the eye; it is an assurance of complete freedom from maintenance.

'Vitrolite' is unaffected by moisture, grease, grime and chemicals, WILL NOT BLISTER OR PEEL, and cannot be defaced with pen or pencil. It is available in White,

Black, Green, Green Agate, Primrose, Turquoise, Pear Grey and Eggshell.

Clark-Eaton offer full technical service in the preparation of schemes, and teams of skilled fixers are available to undertake complete installations.

Please send enquiries or ask for ILLUSTRATED BOOKLET.

SEE OUR
EXHIBIT
AT THE
BUILDING
CENTRE
or consult
Classfile 20.

JAMES CLARK & EATON LTD.

GLASS FOR ALL STRUCTURAL AND DECORATIVE PURPOSES

SCORESBY HOUSE, GLASSHILL STREET, BLACKFRIARS, LONDON, S.E.1

Telephone: WATerloo 8010 (20 lines)

CANTERBURY, BOURNEMOUTH, EASTBOURNE, READING, OXFORD (H. Hunter & Co.)



For the timber-starved



WEYROC Man-made Timber makes timber licences go further by doing many of timber's old jobs—stair risers, doors and shelving are examples. No special techniques are called for; WEYROC can be worked by standard methods with standard tools, and painted or varnished as ordinary timber. The absence of wasteful knots and faults combines with the labour-saving size of the boards to produce considerable economy in costs, too.

Thus WEYROC saves money as well as timber!

Weyroc boards, 8' x 4', are available in two thicknesses, $\frac{1}{2}$ " and $\frac{3}{4}$ ", and three Grades, Plain, Paper-surfaced, and decorative Veneered, for—



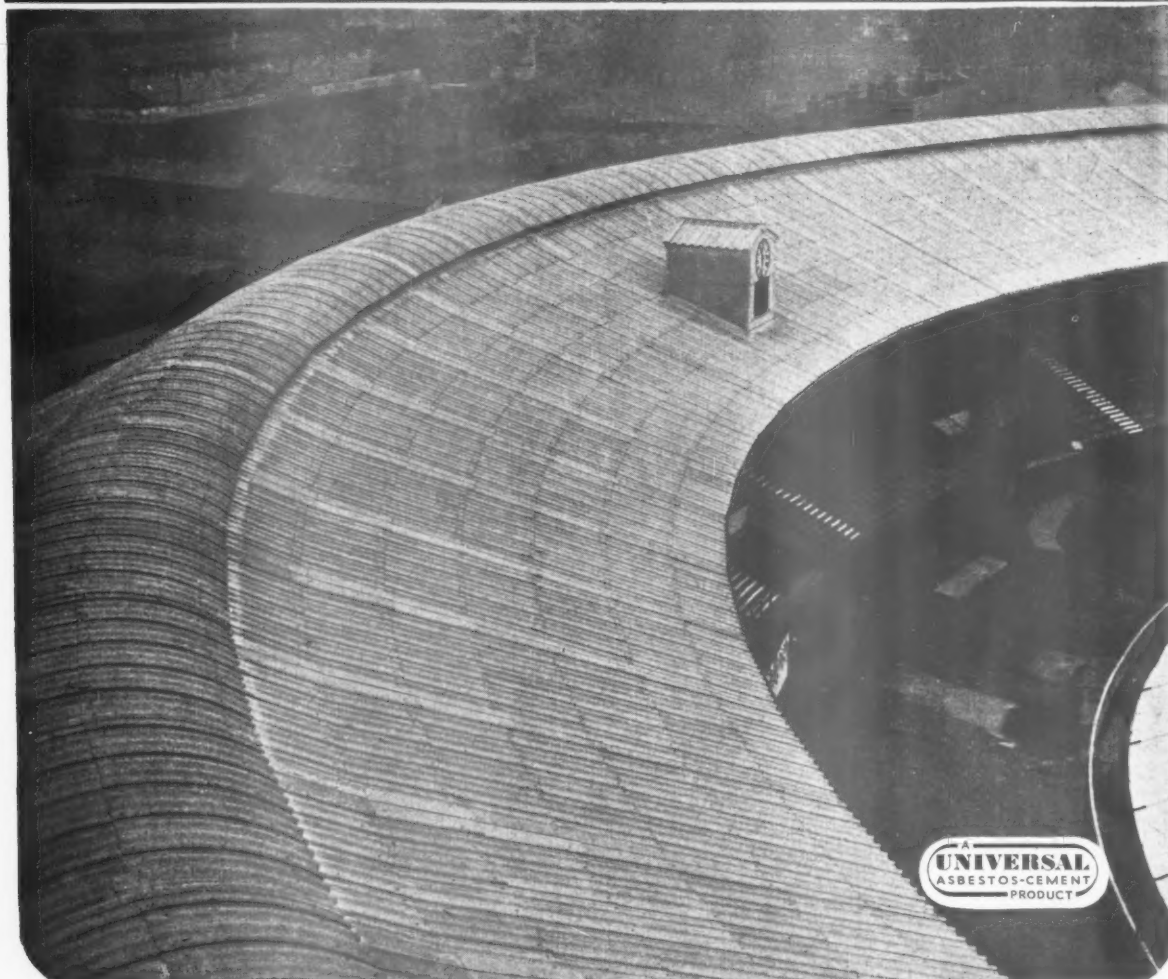
FLOORING • ROOF LINING
SKIRTING • WINDOW SILLS
DOORS • STAIR RISERS
SHELVING • CUPBOARDS, etc.

weyroc
(REGD)
MAN-MADE TIMBER

THE AIRSCREW COMPANY & JICWOOD LTD • WEYBRIDGE • SURREY

UNIVERSAL

ASBESTOS-CEMENT



WHITE CITY STADIUM

REINFORCED TROFSEC SHEETS

PATENT No. 371956

Universal Trofsec Sheets have been specially designed and reinforced so that they may be fixed on purlins spaced up to 6 ft. 6 in. In addition to the obvious saving in Constructional Steel on new buildings, the use of Trofsec Sheets for re-roofing industrial buildings should not be overlooked, for where the roof has previously been covered with corrugated iron, Trofsec Sheets can be applied to the existing purlins. This saves the expense of re-spacing the purlins which would be necessary with most types of Asbestos-Cement Sheeting.

Full technical details and method of fixing are contained in TROFSEC Catalogue.

THE UNIVERSAL ASBESTOS MANUFACTURING CO. LTD.
HANDCRAFT WORKS • TOLPITS • WATFORD • HERTS

Telephone: Watford 3371-3 Telegrams: Uniasbesto, Watford

BIRMINGHAM • BRISTOL • LONDON • GLASGOW • MANCHESTER

*"The quicker you build
the more you get!"*

Mr. Harold MacMillan



Turn that house into houses!



use

"PHARAOH" GYPSUM PLASTER
throughout

The plaster for speedy completion...

- ★ FLOAT AND FINISH IN ONE DAY ★ QUICK DRYING
- ★ NO RISK TO DECORATIONS ★ EASY TO APPLY

THE BRITISH PLASTER BOARD LIMITED

SOUTHERN SALES OFFICE
MORRIS HOUSE,
1-5 JERMYN STREET, LONDON, S.W.1.
Telephone: Whitehall 9821



NORTHERN SALES OFFICE
BIRKENHEAD ROAD,
WALLASEY, CHESHIRE
Telephone: Birkenhead 4411

Who Burnt Sienna ?



History doesn't say . . . but there's no need to get heated about paint problems when all good judges recognise the excellence of Dockers' Decorative Finishes. Hermator, Syntholux, Hermasheen and Muroleum are standard specifications wherever durability and fine appearance are required.

DOCKER BROTHERS

Makers of Paints, Lacquers and Varnishes for every purpose

LADYWOOD • BIRMINGHAM 16



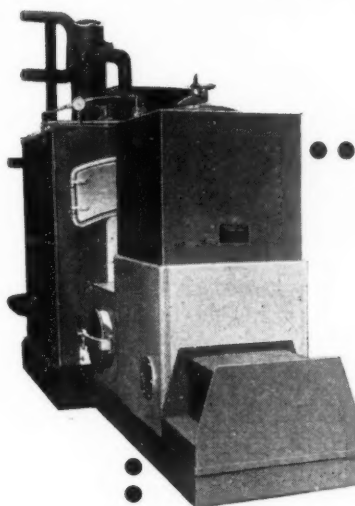
ENOUGH COKE FOR YOUR NEEDS

if you fire with the

MAGNACALOR

DOWN JET (no wearing parts)

coke stoker



PROMPT DELIVERY

QUICK DELIVERY

of Bigwood
coal & coke stokers
will help solve
YOUR FUEL CRISIS



JOSHUA BIGWOOD & SON LIMITED

Head Office: WEDNESFIELD ROAD · WOLVERHAMPTON

Telephone 24771

LONDON & HOME COUNTIES : 41 42 Parliament Street,
London S.W.1. Tel. No. Whitehall 0748.

SOUTH WEST : H. L. Boorne, The Ridge, North Road,
Bath. Tel. No. Bath 2545.

EAST MIDLANDS : R. L. MacGregor, 88 Westcotes Drive,
Leicester. Tel. No. Leicester 65372.

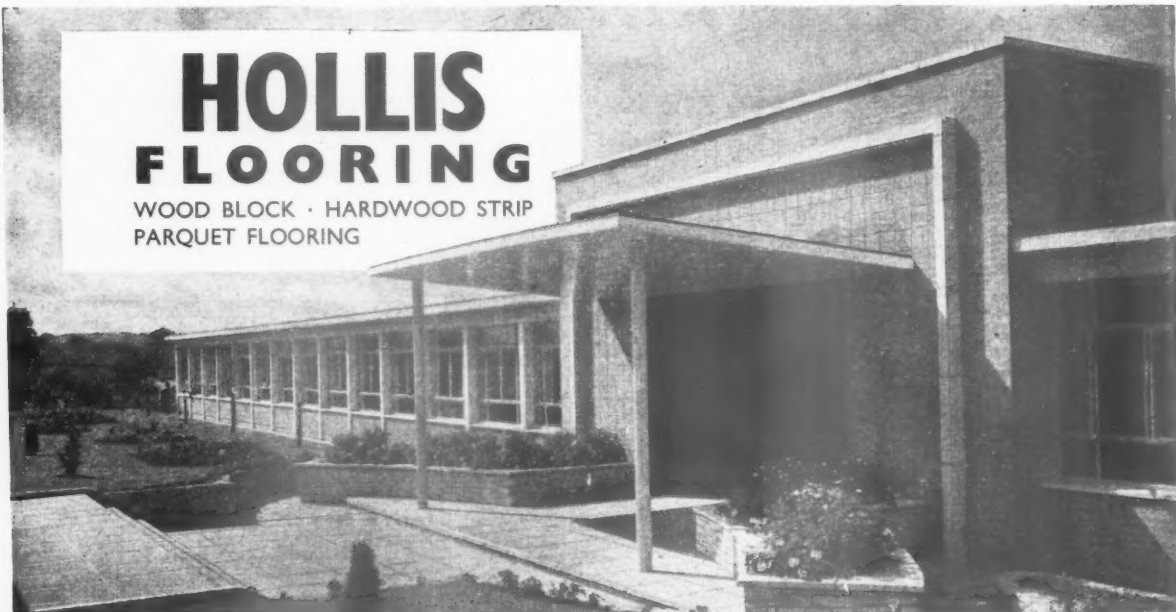
NORTH-WEST : W. E. Bradley, 5 Higher Downs, Altrincham,
Cheshire. Tel. No. Altrincham 2165.

NORTH-EAST : B. Peace, 54 Benomley Crescent, Almond-
bury, Huddersfield. Tel. No. Huddersfield 2035.

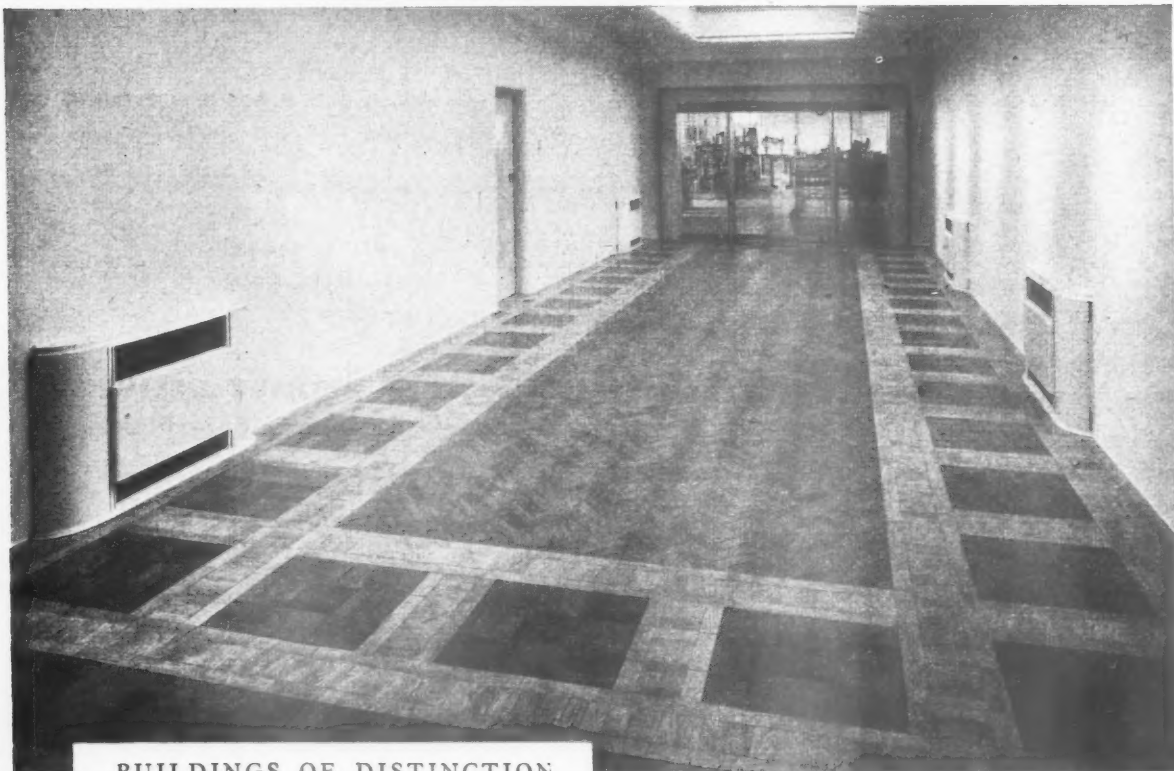
SCOTLAND : Smail Sons & Co. Ltd., 62 Robertson Street,
Glasgow C.2 Tel. No. Central 0421.

HOLLIS FLOORING

WOOD BLOCK · HARDWOOD STRIP
PARQUET FLOORING



Messrs. S. Smith & Sons (England) Ltd., School of Technology, Cheltenham



BUILDINGS OF DISTINCTION

Whether the concept has the clarity of contemporary architecture or is traditional in character, wood flooring is always appropriate, functionally, and aesthetically. Times change, wood floors remain — distinctive, durable, versatile; the ideal flooring medium. Wherever wood floors are specified, Hollis Bros. Ltd. are ready to provide their traditional service in the installation of —

FLOORS OF DISTINCTION

The Architects: T. P. Bennett & Son. The Builders: Wm. Moss & Sons Ltd.
The Specification: 1 1/2 in. nom. English Oak and Siamese Yang

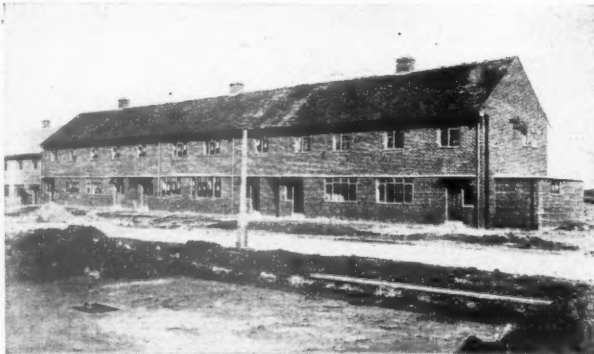
There's nothing like **WOOD**

HOLLIS BROS. LIMITED

HULL, CRAVEN HALL. LONDON, 150 HOLBORN, E.C.1.
LEICESTER, ULVERSCROFT RD. BIRMINGHAM, CAMBRIDGE ST.

Approved contractors for SEMASTIC decorative tiles (product of a Dunlop Company)

A countrywide service for doors and windows



SUNDERLAND

The grand record of the many thousands of houses erected by this county borough has been assisted by the usage of Standard Joinery, Doors, Windows, etc., from our Bingley factory.

Borough Architect: Harvey C. Bishop, A.R.I.B.A.

Contractors: Sunderland Master Builders Federation.

The joinery throughout all this magnificently designed housing estate was carried out exclusively by Magnet factories.

Borough Architect: Johnson Blackett, F.R.I.B.A.

Contractors: Amalgamated Building Contractors, Ltd.

NEWPORT



LEWISHAM

The joinery for this splendidly designed block of flats was again specified and supplied by Magnet Joinery, Ltd.

Borough Architect: M. H. Forward, F.R.I.B.A., F.R.I.C.S.

Contractors: Rush & Thompson Ltd., formerly Kent & Sussex Contractors, Ltd.

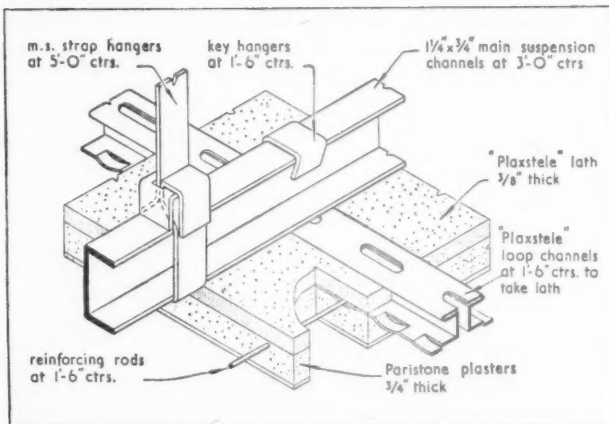
For large undertakings you must have the facilities of a well-equipped organisation if you are to keep to a time schedule. Ample supplies of kilned and air-conditioned timber are always available together with sufficient stocks for instant delivery to cope with any emergency. Our highly skilled staff, working in three up-to-date factories, ensure that Magnet prices are right and will give every satisfaction.

WHITLEY STREET,
BINGLEY, YORKS. Bingley 3547 (5 lines)

LOVE LANE,
ASTON, BIRMINGHAM. Aston Cross 3291/2

LONDON, ROAD
GRAYS, ESSEX. Tilbury 77 (5 lines)

MAGNET
JOINERY LIMITED



"PARISTONE" PLASTER gives this suspended ceiling *high fire resistance*

Department Store for
E. MAYES AND SON LTD., SOUTHAMPTON
Architects: *Gutteridge and Gutteridge, F.A.R.I.B.A.*
Anthony C. Tripe, F.R.I.B.A.

General Contractors: *Bovis Ltd.*
Plastering Contractors: *Wilcox & Froome, Poole.*

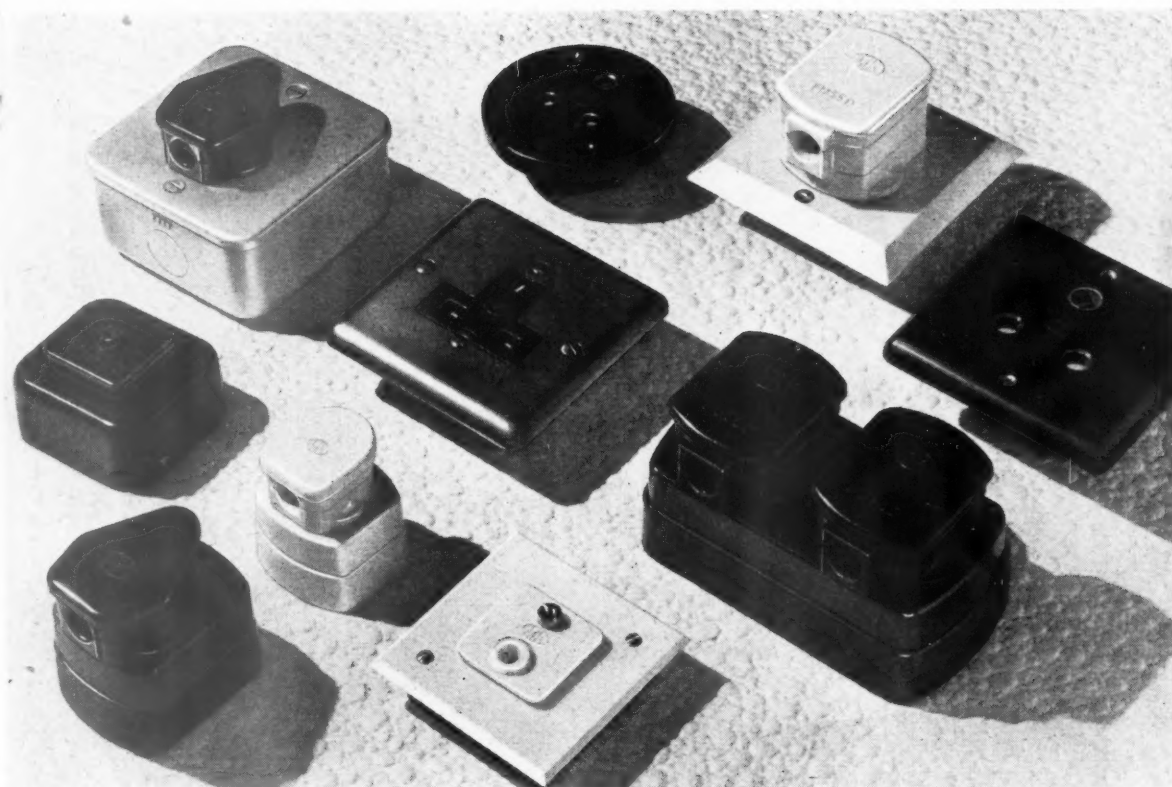
The photographs show: 1. the Ground Floor Showroom
2. a general view of the front of the Store.



Makers of PARISTONE Browning Plaster
(Haird, Unhaird and Metal Lathing
Grades), PARISTONE Wall Finishing
Plaster, CRETSTONE Concrete Bonding
Plaster, GYPTONE Board Finishing Plaster,
ZONAPLAX Vermiculite Insulating Plaster
(Undercoat and Finishing Grades).

GYPROC PRODUCTS LIMITED

Head Office: Westfield, Upper Singewell Road, Gravesend, Kent. Telephone: Gravesend 4251-4. Telegrams: Gyproc, Gravesend. Glasgow Office: Gyproc Wharf, Shieldhall, Glasgow, S.W.1. Telephone: Govan 2141-3. Telegrams: Gyproc, Glasgow. Midland District Sales Office: East Leake, near Loughborough. Telephone: East Leake 231. London Office: Morris House, 1-5 Jermyn Street, London, S.W.1. Telephone: Whitehall 8073-4. CP2



Precision in practice

These are just a few of the socket-outlets and plugs from the MK range of fine electrical accessories. In common with all MK products, they carry the stamp of clean design, thorough operational efficiency and ample safety factors, while conforming to the appropriate British Standards.



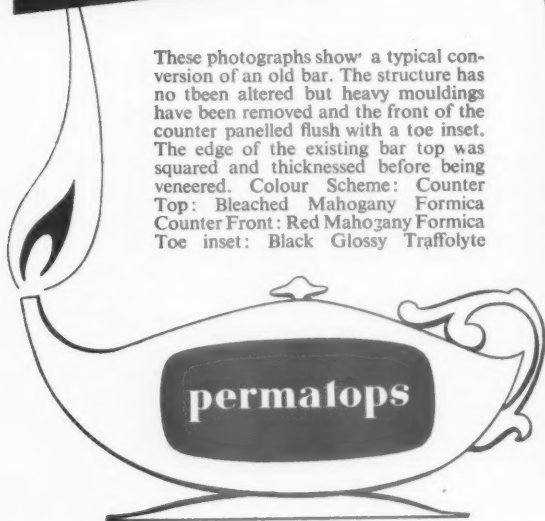
.... the mark of good design

MK ELECTRIC LIMITED LONDON N.18 Tel: TOTtenham 5151

new bars for old

Old bars transformed to a style which is functional yet beautiful is not the prerogative of the genie but the business of Permatops Ltd., who make a specialised study of the transformation of YOUR bars using heat-proof, spirit-resisting and scratch-proof Formica and similar materials. A special feature of this bar remodelling service is that normal trading will not be interrupted.

These photographs show a typical conversion of an old bar. The structure has not been altered but heavy mouldings have been removed and the front of the counter panelled flush with a toe inset. The edge of the existing bar top was squared and thickened before being veneered. Colour Scheme: Counter Top: Bleached Mahogany Formica Counter Front: Red Mahogany Formica Toe inset: Black Glossy Traffolyte



PERMATOPS LTD., Permatops Works, Brathway Rd., London, S.W.18. Tel: PUTney 1002 (3 Lines)



WEATHERFOIL HEATING

*The South African Tourist Bureau,
Piccadilly, London, W.1
Architects: James Cubitt & Partners*

Pleasing Appearance and Space Saving

In showrooms, schools, factories and wherever floor area is limited WEATHERFOIL saves space and simplifies planning.

Each WEATHERFOIL unit consists of a heater battery, a slow running fan and two metal grilles. The air withdrawn through one grille passes over the heater battery and is returned, warmed, through the second grille. Through these two grilles, which are the only items to be exposed to view, warm air is circulated to the whole room.

WEATHERFOIL Heating ensures constant, comfortable warmth by means of thermostatic control, plus individual room control switches. When the building is not in use, the temperature throughout is reduced automatically. In places where the temperature may be suddenly raised due to crowds or sudden changes in the weather, the heat will be turned off automatically as required, with obvious saving in fuel costs.

★ The accompanying photograph of the new South African Tourist Bureau shows how well WEATHERFOIL heat grilles fit into contemporary interior design.

WEATHERFOIL HEATING SYSTEMS LTD

185 BATH ROAD, SLOUGH, BUCKS.

TELEPHONE: SLOUGH 25561

H.S. Ad. 100C/12.140

TEMPERATURE CONTROL ON H.W. HEATING SYSTEMS IN ADVANCE OF EFFECT INDOORS OF OUTSIDE TEMPERATURE CHANGE

The Sarco E.T.O. is a self-contained fully automatic control for accelerated hot-water heating systems.

Its three-ported thermostatic Blending Valve is under the master control of a second thermostat located outdoors. Variations in the temperature of flow from the Blending Valve to the heating system are made directly by the outdoor thermostat in anticipation of the effect indoors of any external temperature change. Thus:

- 1 *The E.T.O. provides equable indoor temperatures under conditions of changing outdoor temperatures ;*
- 2 *It controls heat supply at the minimum required to balance heat losses whatever the outside temperature conditions, giving maximum fuel economy ;*
- 3 *It can be designed to suit the heat emission curves appropriate to the type of heating surface installed ;*
- 4 *It can, after installation, be corrected to allow for any variation between design and site conditions ;*
- 5 *A boiler is subjected to less strain, and corrosion troubles avoided, because the boiler can be operated at a constant water temperature ,*
- 6 *The E.T.O. is non-electric, entirely self-operating and direct-acting. It has packless glands which eliminate the trouble so commonly experienced with ordinary glands.*
- 7 *It is reasonable in cost, easy to install, and easy on maintenance.*

For more information, please send the request slip (below) to SARCO THERMOSTATS LTD., CHELTENHAM, GLOS.

SARCO E.T.O. CONTROLLER

REQUEST SLIP FOR ADDITIONAL INFORMATION

NAME:

ADDRESS:



AR 452

BURN BROS

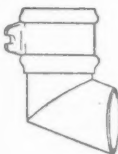


**THE LARGEST
STOCKISTS OF**

Cast Iron Soil & Rainwater Pipes & Gutters

**Over 100,000
Castings in Stock**



We can supply all types of Cast Iron Sanitary goods. Our technical staff will be pleased to advise on any sanitary, sewage or drainage problem.

| | | |
|--|---|--|
|  <p>2,000 RAINWATER PIPES AND FITTINGS</p> |  <p>10,000 DRAIN PIPES AND FITTINGS (incl. Watermain)</p> |  <p>85,000 L.C.C. PIPES AND FITTINGS</p> |
|--|---|--|

ALSO COPPER & MALLEABLE FITTINGS, TUBES, Etc.

*Send for our new illustrated catalogue
and make it your stand-by.*

BURN BROS. (LONDON) LTD.

**DRAINAGE AND SANITARY ENGINEERS
MANUFACTURERS OF DRAIN TESTING
APPLIANCES**

6-8 STAMFORD STREET, LONDON, S.E.1

Telephone: WATerloo 5261 • Telegrams: Abrasion 'Sedist' London



F

ERODO Stairtreads combine three essentials: SAFETY, smart appearance and long life.

Gleaming aluminium nosing clearly outlines each step and the inlaid Ferodo fabric affords a firm reassuring non-slip grip, even to wet leather or rubber soles—two vital factors in SAFETY. Further, Ferodo Stairtreads absorb endless wear over a period of many years without deterioration in efficiency or appearance.

They feature largely in Architects' specifications and are being installed in both new and existing public buildings, including Stores, Offices, Cinemas, Theatres, Hotels, Blocks of Flats, etc.

A Striking Conversion . . . plus SAFETY



Ferodo Stairtreads are of two types—single and double channel. If preferred, in place of Ferodo fabric, the inlaid strips may be of Ferodo Composition—equally non-slip—in red, white, grey, azure blue or green to harmonise with colour schemes. There is also a plain steel-backed Industrial type. All are described and illustrated in our Catalogue No. 732 of which a copy will gladly be sent on request.

The illustrations are of a recent conversion at Abbey House, Victoria, London, S.W.1. Architects: Boreham Son & Wallace, London, W.C.1. Contractors: Lewis Bros. (Kings Cross) Ltd. London, N.W.1.

FERODO

STAIRTREADS

FERODO LIMITED, CHAPEL-EN-LE-FRITH

A Member of the Turner & Newall Organisation

THE VERSATILITY OF STEELWORK



B.C.S.A

A high-speed wind-tunnel

This closed-circuit wind-tunnel at Vickers Armstrong's, Weybridge, for the investigation of aerodynamic phenomena at high subsonic speeds, is a fine example of the adaptability of steelwork.

The smooth merging from the circular to the rectangular cross-sections is shown clearly together with the system of stiffening.

For convenience in transport the wind-tunnel is divided into all-welded sections which are bolted together when they reach the site.



BRITISH CONSTRUCTIONAL STEELWORK ASSOCIATION,
ARTILLERY HOUSE, WESTMINSTER, S.W.1.



THE

No. 29



THE HO

The f
ment d
anyone
worth
increas
cost, a
far the
concern
ing. C
Ministe
problem
the oth

ASTRA
advanc
existing
large n
know n
tion of



THE ARCHITECTS' JOURNAL

No. 2981 April 17, 1952 VOL 115

EDITORIAL BOARD : (1) *Consulting Editor*, F. R. Yerbury, Hon. A.R.I.B.A. (2) *Town Planning Editor*, Dr. Thomas Sharp, L.R.I.B.A., P.P.T.P.I. (3) *House Editor*, J. M. Richards, A.R.I.B.A. (4) *Technical Editor*, R. Fitzmaurice, B.Sc., M.I.C.E., Hon. A.R.I.B.A. (5) *Editor Information Sheets*, Cotterell Butler, A.R.I.B.A. (6) *Editorial Director*, H. de C. Hastings.

GUEST EDITORS : (7) Robert Gardner-Medwin, F.R.I.B.A., M.T.P.I.; Donald Gibson, C.B.E., M.A., A.R.I.B.A., M.T.P.I.; S. A. W. Johnson-Marshall, A.R.I.B.A.; Robert H. Matthew, C.B.E., A.R.I.B.A.

SPECIALIST EDITORS* : (8) Planning (9) Practice (10) Surveying and Specification (11) Materials (12) General Construction (13) Structural Engineering (14) Sound Insulation and Acoustics (15) Heating and Ventilation (16) Lighting (17) Sanitation (18) Legal.

ASSISTANT EDITORS : (19) *Chief Assistant Editor*, D. A. C. A. Boyne, (20) *Assistant Editor*, K. J. Robinson, (21) *Assistant Editor* (Buildings), L. F. R. Jones, (22) *Assistant Editor* (News), M. B. Farr, (23) *Assistant Editor* (Information Sheets), E. G. Johnson, (24) *Assistant Technical Editor*, M. Jay, (25) *Photographic Department*, E. R. H. Read, H. de Burgh Galwey, (26) *Editorial Secretary*, Rachael Tower

* To preserve freedom of criticism these editors, as leaders in their respective fields, remain anonymous.

9, 11 & 13 Queen Anne's Gate, Westminster, London, S.W.1 Whitehall 0611

Subscription rates: by post in the U.K. or abroad, £2 10s. 0d. per annum. Single copies, 1s.; post free, 1s. 3d. Special numbers are included in Subscriptions; single copies, 2s.; post free, 2s. 3d. Back numbers more than 12 months old (when available), double price. Half-yearly volumes can be bound complete with index in cloth cases for 25s. 0d.; carriage, 1s. extra.



THE HOUSING FRONT

The first half year of a new Government draws to an end without sign that anyone in authority has had any worth while new ideas on how to increase output of houses or to decrease cost, and it seems fair to say that so far the utterances of the two Ministers concerned have been very disappointing. One doubts in fact whether one Minister has given his mind to the problems or whether it matters whether the other one does or not.

ASTRAGAL does not expect any long advance on the technical side under existing conditions. By this time a large number of architects and builders know most of the answers. Prefabrication of structure is out until light

materials are plentiful, and though sizeable economies might result from the use of a standardized "service core" of kitchen-bathroom-W.C. and all plumbing, it is in carcassing—not in services—that the real delays occur; and any attempt to introduce a standardized piece of accommodation would certainly not be worth the fuss such a suggestion would stir up. On the technical side Britain is doing well in spite of difficulties and hindrances.

In the USA Mr. Levitt's famous Levittowner house (1,070 ft. super) sells at 9,990 dollars—or about £3,300, and in Rhodesia a house of the same size doesn't cost much less.

... AND SOCIAL

So it's no surprise to find that the social (one can't say political) side of the problem has been receiving a lot of attention—sometimes well-informed (as in *The Town Planning Review* April 1951 and January 1952), sometimes otherwise. The central question is whether the inclusive rents of local authority dwellings are being kept undesirably low in relation to the cost of other essentials—like goods and clothes—and is this creating a demand that is unrealistic in the sense that the country has not the resources to meet it?

Technicians would be well-advised to keep out of this one. It's so simple. Probably only small proportions of local authority tenants could pay big rents without hardship; these tenants cause envy amongst would-be tenants out of all proportion to their numbers; the problem could easily be solved by a means test and . . . well, there you are, you see. You were warned not to play with explosives.

CLIMBING UP A HOUSING QUEUE

I can see a few minor fireworks being set alight in Ipswich where the local Housing Authority has decided to count "courting" time when allocating houses, even though it counts only at half rates, i.e., "12 months courting time = 6 months marriage." There have been so many complaints from engaged couples who can't be put on housing lists until they are actually married that this idea seems sound enough, though just who decides what is and what is not courting nobody seems to know. But I can see a whole crop of all too obvious music hall jokes about it, and I don't want to hear any of them.

UNWIELDY LIES THE BOARD . . .

A few weeks ago the JOURNAL's editors complained that no architects had been appointed to the regional housing production boards set up throughout the country by the MOHLG. (These boards, it will be remembered, are being formed "to bring all those concerned in house-building . . . into close co-operation so as to keep local housing programmes and their development under constant review and advise on the measures necessary to secure their punctual completion.") I have now heard that the Institute of Registered Architects was unkind enough to ask the Ministry of H and LG why there were no architects on the housing boards. It is always unkind to ask a Ministry a question of that sort; you know what the result will be just as you know what will happen when you put your foot in front of someone in a hurry. And this time the Ministry concerned, while retaining its air of dignity, fell flat on its face.

It was thought, said the Ministry, that



HOPE'S STEEL DOOR FRAMES

ARE NOW AVAILABLE FOR
QUICK DELIVERY

Send for illustrated literature: HENRY HOPE & SONS LTD
SMETHWICK, BIRMINGHAM & 17 BERNERS ST. LONDON, W.1

"the boards should be kept quite small and limited to the three Ministries concerned with the problem of representation of the employers and operatives in the building industry. If any particular profession had been represented it would not have been possible to resist the claims to representation of all the professions concerned, and the boards would have been unwieldy."

Well, maybe. The smaller any board is, usually the better. But I can't help feeling that here the architect—so often, admittedly, a self-invited interloper upon the social scene—would be a welcome and useful guest, even at the expense of a few protests from the "other professions."

VAN RIEBEECK FESTIVAL

Despite a deeply disturbed political background, Capetown's Van Riebeeck Festival Exhibition—which closed its gates last week—seems to have been a great success. It attracted over three quarters of a million visitors (which is an extraordinarily high proportion of South Africa's very scattered population). Its run was extended by popular demand for an extra week. Familiar criticisms abounded of course—so usual and familiar according to Hugh Casson, who has just flown back from a short stay there, that he felt as if he were seeing a feature film round again—weather unreliable and shortage of wallboard. Constant comment that public money should not be wasted on exhibitions but devoted to hospitals and workers' housing. Endless complaints about car-parking and catering prices, and within the exhibition itself, the old faults of not enough seats and too much litter. The general standard of design, I gather, was undistinguished. There were few architects' jobs in evidence at the Fair. Not surprising really considering the sort of business they're doing out there just now. Every pocket so bulging with jobs apparently that if a contract drops to the ground nobody bothers to pick it up, however many noughts it has written on it. Something like 73 million pounds' worth of new building work was authorized in the Union last year, despite shortages and minor building restrictions, and no smell of real estate and wet concrete stifles the workers in the big cities. "Can't last, old boy," says the architect, absent-mindedly



Osbert Lancaster's design for the ballet, "Bonne Bouche" which opened at the Royal Opera House, Covent Garden last week.

ordering the second Cadillac. "Things are getting very difficult. And one can't get any assistants who know anything for love or money." And they certainly offer money. In Nairobi, Hugh Casson says, he saw an advertisement asking for a draughtsman—RIBA inter standard—at a salary of £1,200 a year with free passage, long home leaves, and use of car! (Postscript for those who have already started to pack: Building is booming it's true. But if you put your ear close to the African ground you might detect also the faintest booming of unrest and discontent, and it's anybody's guess as to which boom will be the loudest in twenty years time.)

NEWS FROM DUBLIN

Equally brisk activity on the building front is, reported in Eire from a colleague just back from Dublin—though not always in the offices of architects. There is a large amount of suburban house building, but the greater part of it is spec-builder's stuff. In fact he describes the architectural scene as oddly reminiscent of London between the wars; that is, before the present planning acts.

Speculative housing estates are spreading over the green countryside all round the city; ribbon-development is rampant; flashy designs and substitute materials (especially the garish white and red of the concrete blocks and cement roofing tiles that seem to have replaced burnt clay bricks and

tiles altogether) make the ubiquitous semi-detached villas hideous in a fashion that our austerity-controlled local authority housing has happily made a rarity.

But there is a quantity of good architecture to set off against these horrors: some decent hospitals and schools, at least one neatly laid out housing scheme by David Hanley, borough architect of Dun Laoghaire, and Michael Scott's brightly coloured bus garage at Donnybrook, with Ireland's first shell-concrete roof, designed by Ove Arup.

And, of course, there's the bus terminus, also by Michael Scott, still going strong apparently as the perennial subject of argument—and not only among architects. "What do you think of the bus terminus?" is the first question everyone asks, my colleague tells me, but most often the answer is only required as fuel for the fires of political controversy in which this enterprise has been involved since it was started under the last Government but one.

No wise Englishman ventures an opinion on Irish politics. My informant's architectural opinion is that the half completed building is highly promising and in spite of a somewhat untidy skyline consorts surprisingly well with the Custom House nearby. It is due to be finished at the end of this year. When that time comes, as a subject for argument it will be sadly missed.



Social Improvisation in Danger

Not just a Bank-holiday snap from a mediæval town. It always looks like holiday time in those few market towns such as Ross-on-Wye (shown here), where, by an oversight of officialdom, people may still come and go—in some parts, at least—as they please. On the right of the picture is the old market hall; in front of it—from the point where the High Street splits in two and dodges around it—the townsfolk gather in the open market-place, enjoying what Eric de Maré, writing in the current *Architectural Review*, calls "social improvisation." This, he points out, is the country town's centre working naturally as it has worked ever since towns were first built. It seems miraculous that a few places like Ross-on-Wye have escaped the tidy mind that thinks there is a place for everything; the sort of mind responsible for the building of drab "keep-off-the-grass"

war memorials in civic centres. But even Ross-on-Wye is in danger. The picture above shows how social improvisation is menaced by traffic improvisation. The narrow mediæval street is allowed to carry arterial traffic, and from dawn till dusk great lumbering lorries skirt the fringe of the freely moving crowd, while bewildered policemen curse the obstructing market hall. Not only is there daily danger here to life; there is a danger that the mechanical monsters will, in time, break up the lively flow of townsfolk around their commercial centre. But perhaps the greatest danger is that officialdom will ignore the possibility of by-passing the traffic and with a few more signs and—who knows?—even a repellent war memorial, will put the needs of long-distance traffic before those of the human being. (Photograph by Eric de Maré from the *Architectural Review*.)

BIRMINGHAM
The v
recent
closer
building
would
Confer
hoc con
but so
efforts,
commit
the oth
of the
carryin
way.
Donald
student
full w
people
three b
in all),
work b
remain
that h
Coven
eventu
deservi

Cong
of it.
at leas
about
indeed
debata
to hear
but th
ways.
—not
realism
they c
experi
right.
heavy
indust
deep
Birm
plant
appre
seem
in the
with
somet

The
Rober
when
big jo
were.
this ju
were
and th

POINTS FROM THIS ISSUE

- Report on the Van Riebeeck Exhibition, Capetown .. page 473
- America's National Plumbing Code pages 475 and 495
- Progress at the University City, Mexicopage 478

The Editors

ARE WE OBSOLETE?

IT is fashionable these days for teams to travel to the USA and to come back full of bright ideas on efficiency and organization and to tell us either directly or indirectly that the building industry in this country is inefficient, out of date and generally moribund. (An interesting exception is reported this week on pages 493 to 495. It concerns preliminary research on one-pipe plumbing carried out by Birmingham students.) It is refreshing, therefore, to read in a recent issue of *The Architectural Record*, that the United States, as far as plumbing is concerned, has problems similar to our own.

In a report on plumbing, which is seeking to find economies in both dollars and scarce material, the following passage occurs:—"Obsolete codes impose unnecessary expense on the public in many different ways. Oversized pipes must be used, and vents that are not needed must be installed. Designers and contractors must be familiar with the multitudinous details of the different codes where they work. . . . Of fifty typical cities recently surveyed, twenty have either adopted the *National Plumbing Code* or are revising their codes so as to agree with it. Five other codes require extra-heavy, cast-iron soil pipe for the building sewer. Seven require the installation of a house trap and fresh air inlet, which are not recommended in light of present knowledge. Ten of the codes require that the unvented length of a fixture drain must not exceed 2 ft." The *Code* is described on pages 495 to 496. The purpose of drawing attention to this interesting quotation is not merely to show that other people may be in as big a mess as we are but rather to illustrate the need for a clear and comprehensive statement on the subject of drainage here. Our own Post War Study Committees made various suggestions about disposal of waste and layout of drains. Years have since passed and all that the average practising architect is aware of is that one-pipe plumbing is now "on" if he wishes to use it. A few papers have been given on the subject and many opinions expressed about the need for venting or non-venting of various parts of a disposal system.

We suggest that real economies could be made if the authorities came to some definite agreement about a set of minimum

BIRMINGHAM SCRIMMAGE

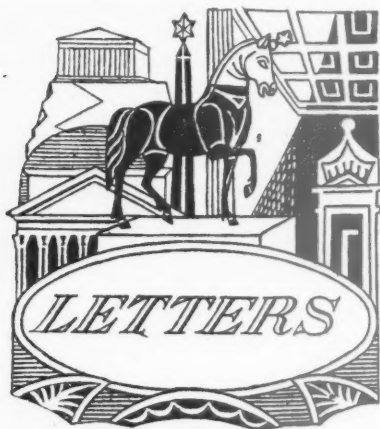
The whole drift of RIBA policy in recent years has been to advocate a closer link between students and real building—a policy with which we would all agree. The Allied Society's Conference indeed set up a special *ad hoc* committee to report on the matter, but so far as I know this Committee's efforts, like those of so many other committees, has been abortive. On the other hand Douglas Jones, principal of the Birmingham School, has been carrying out RIBA policy in his own way. With the full co-operation of Donald Gibson, of Coventry, his students have designed and completed full working-drawings for eight old-people's bungalows, six garages and three blocks of flats (about twenty flats in all), and are now seeing their own work built in Coventry. Douglas Jones remains the "architect" in the sense that he is under seal to the City of Coventry, though whether his fees eventually go to ABS or some other deserving charity is his own affair.

Congratulations all round? Not a bit of it! Some members of the profession at least show every symptom of being about to go up in very black smoke indeed. Of course the project has its debatable features—and I should like to hear the views of readers on them—but the objectors cannot have it both ways. Year in, year out they complain—not surprisingly—of the lack of realism in architectural education; but they complain even more when some experimental steps are taken to put it right. After all, if architecture were a heavy industry the principals of that industry would have to put their hands deep in their pockets to equip the Birmingham School with expensive plant—that is if they were to get their apprentices trained at all. As it is they seem to be doing nothing but behave in the manner traditionally associated with dogs in mangers—is it called sometimes "restrictive practices?"

The whole thing contrasts with Robert Jordan's experiment at the AA when students worked as navvies on big jobs. In that case the trade unions were, he told me, sweetness itself, or is this just due to the fact that the unions were consulted before the experiment, and that the RIBA perhaps was not?

ASTRAGAL

standards and then gave their decisions wide publicity. Piping of all kinds is very expensive. It is also very difficult to get at the moment, and is likely to remain so. A clear lead, perhaps in the form of a BRS Digest or two, would be invaluable, if at the same time there could be a direction that local authority officials must allow work to proceed if done in accordance with the recommendations.



Eric Ambrose, F.R.I.B.A.
(Nightingale and Ambrose)

Alexander C. Hardy, B. Arch.,
A.R.I.B.A.

G. C. Hodges, A.R.I.B.A.,
A.M.T.P.I.

Eric de Mare, A.R.I.B.A.
Secretary of The Company of Free Men

"As Anonymous as Astragal"

WDC Witch-hunt?

SIR.—We have had occasion to remark in recent months a very regrettable tendency on the part of certain regions of the War Damage Commission to attempt to reduce the already inadequate contribution payable to claimants for the services of professional advisers. We are satisfied that this attitude is not condoned by the hierarchy at the Commission's Headquarters, for when our grievances on this score have been referred to Devonshire House, we have received not only courtesy, but an admission of our claim.

Recently, however, we have come across what must surely be the very nadir of all regional parsimonies.

Our client is a chartered accountant owning business premises scheduled by the LCC as being of historic interest and requiring specially careful treatment. He instructed us to prepare a specification of War Damage, agree the claim with the Commission, supervise the work and advise upon its progress, settle the accounts with the Commission and obtain payment of the agreed sum upon completion. The work was carried out by a building firm of which the accountant was a director.

The Commission's regional manager has now refused to pay our client a contribution towards our fees because . . . "Where a builder carries out repairs to his own property, the Commission think it generally reasonable to expect that the employment of an architect or surveyor is unnecessary . . . the supervision of the builder's

accounts are . . . an essential part of the professional services . . . where owner and builder are the same, those services are plainly unnecessary . . ."

Avoiding all legal argument as to whether our client can in fact be termed "the builder," the extraordinary action appears to us to savour of the witch-hunt.

Builders who own their own premises are openly discouraged from employing architects, whatever the magnitude of the proposed work. A chartered accountant, or any other technically unqualified building owner who becomes a director (maybe even a shareholder!) of a building firm is at once qualified to act as architect or surveyor by edict of a regional manager of the WDC.

To argue that the Commission has never paid a builder professional fees where plans or specification have been prepared, but has simply allowed him "the proper cost" of these items, is surely a foolish quibble.

Letters such as the one we quote, not only recommend a director of a building company not to employ an architect, but suggest that a builder can do an architect's work and no doubt some of them will produce such a letter to a client as proof of the fact that he can actually save money by dispensing with professional advice! The reason given by the Commission that an architect cannot hold the scales between contractor and client when they are one and the same person and should not therefore be paid for by the Commission, despite the fact that he carries out all the duties we have enumerated, was surely never the intention of those who drafted the War Damage Act.

When will the regional offices of the Commission realize that the architect is their friend, doing a difficult job honestly and conscientiously, and by his knowledge and ability, saving his client—and the country—time and money?

Abortive attempts (we hope!) such as the one we have described, ought not to be made by the Commission, even if they are not condoned at headquarters, and the architect ought not to be subjected to these aggravations.

London.

ERIC AMBROSE.

Development Charge

SIR.—I read with interest the article on Development Charge in the JOURNAL for March 27, but do not consider that enough emphasis was laid on the fact that the Development Charge virtually increases in proportion to land values in the open market.

I have recently had an example where the price asked for a normal sized plot of land, part of the curtilage of an existing dwelling, was over £1,000, and due to the scarcity of plots, this high price was paid, even although no claim had been made by the vendor on the £300 mill. Fund. When the Development Charge was assessed it was approximately 100 per cent. of the purchase price.

A Government publication on the 1947 Act states: "One purpose of the Act is to freeze the value of land to roughly the value for its existing use—that is to say, that in future a landowner, when he sells his land, can expect to receive only its value for the use to which it is actually being put at

that time." It would appear that this purpose of the Act has been forgotten, as well as the powers of the Central Land Board to purchase land by compulsion, at District Valuers' price, should development be restricted by the high price being asked for land ripe for development in the open market. Instead it appears that the Treasury are cashing in on the excessive prices being asked for building plots in areas where they are scarce.

It is obvious that the Act is not facilitating development, as was intended, but is in fact discouraging it, and in view of the present housing shortage it is high time that the Section of the Act dealing with Development Charges was revised.

ALEXANDER C. HARDY.

Bedford.

Black Marx for Astragal

SIR.—ASTRAGAL has got it wrong again. Karl Marx was not with his daughters when they were nearly crushed to death by the crowd which surged through Temple Bar at Wellington's funeral.

Wilhelm Liebknecht had taken the two little girls to see the show, and he records how the children were swept away from him through one of the three gateways, and were saved because they "posted themselves behind a projection of the wall that had caused the pressure." Several women were killed, and "the frightful scenes of that afternoon were largely instrumental in helping to break down Temple Bar, that abominable obstruction to traffic."

And if ASTRAGAL thinks what I think he thinks, his mind is even more warped than I had believed.

G. C. HODGES.

Croydon.

Where Credit is Due

SIR.—ASTRAGAL has been misinformed. As secretary of a new body which exists to establish Social Credit, I wish to point out that the Social Credit boys do not ask "why we need money anyway." They ask simply that total purchasing power shall be related to total price values—in other words that we shall be allowed to consume what we produce. The implications of that, especially for architects, are enormous.

ERIC DE MARE.

London.

Hulls Delight

SIR.—Reading with interest and amusement ASTRAGAL'S note "Hulls Delight" (AJ: March 27) prompts me to write to you.

The Hull students of today are quite right in their awareness of the rarity of modern building in Hull. Yet Hull School itself has played a part in the modern movement. Immediately before the war J. L. Martin was its head, and Max Lock his successor, and those of us who had the fortune to study under these leaders are never likely to lose our enthusiasm for their schools of thought, though many of us are far from Hull and not always easily able to make our influence felt.

Let it not be thought that there is no modern building near Hull even if none springs to mind in the city. Martin and Napper built houses at Swanland and Kirkella respectively. There is a house at Kirkella which I believe was designed by a now famous Professor of Architecture in South Africa. Martin also did minor work in Hull and I believe a local architect of great standing in the profession who has strong sympathy with contemporary work did much to make all this possible.

Apert
the city
industrial
quite un
had ra
the case
to Pow
you wil
gables o
flavour
Avenue
open d
on, but
for him

[Hull
series o
towns
bury—



LCC
Sou
Ope

Last
between
Count
will b
every
closed
certain
exhibi
The
of the
from
lition
around
By M
Garde
Festiv
will b
layou
Resta

SCO
Eco

A per
house
tional
ment
Econ
been
Scotti
6d.),
clause
tradit

Apart from these points the main claim the city has to fame is historical and industrial. It is, in fact, in many respects quite unique, and even architecturally has had rare features mostly destroyed as in the case of the curious Edwardian cupola to Powdnys in King Edward Street, which you will find on old postcards, occasional gables of the same period in Jamison Street and Prospect Street which have a Dutch flavour. The town planning of the Victorian Avenue district, its level crossings and its open drains and watercourses. I could go on, but why does not ASTRAGAL go and see for himself?

"AS ANONYMOUS AS ASTRAGAL."

[Hull will be included in the JOURNAL's series of articles on the rebuilding of blitzed towns which begins next week with Canterbury.—Ed.]



LCC

South Bank Promenade Opened to Public

Last week the South Bank promenade between the Thameside Restaurant and County Hall was opened to the public. It will be open until half an hour after sunset every day, although parts of it may be closed between now and mid-Summer, while certain demolition work is carried out on exhibition buildings.

The cantilevered viewing platform in front of the Royal Festival Hall is now accessible from the promenade, and until its demolition the public will again be able to walk around the Skylon.

By May 24, at the latest, when the Festival Gardens re-open in Battersea Park, the Festival Hall Pier (formerly Rodney Pier) will be in use again. By this time the garden layout near the Pier and the Thameside Restaurant is expected to be completed.

SCOTLAND

Economy in Building

A penalty clause for late completion of houses would help to speed up work on traditional housing contracts, says a new Department of Health for Scotland handbook *Economy in House Building*, which has just been issued to local authorities (Part VI, Scottish Housing Handbook, HMSO, price 6d.). The handbook points out that a penalty clause is already standard practice in non-traditional housing.



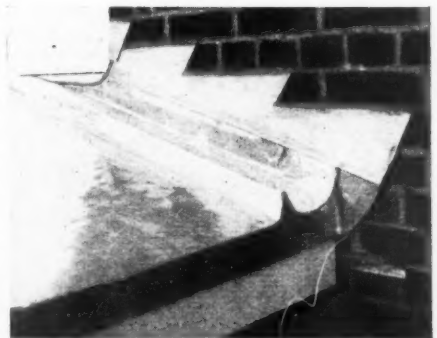
In the JOURNAL for March 27 it was announced that these flats in Hamburg were designed by Corbusier. That was the information given by a news agency. But in fact the flats were designed in 1945-46 by a panel composed of a special Royal Engineer Unit, representatives of Control Commission, Germany and co-opted Hamburg architects. The architects employed were Lt.-Col. G. W. H. Ryland; Captain D. R. Borrett Captain R. J. Brown, Captain J. F. R. Pullan, Lt. D. I. S. Davis, R. H. Browning (ex-Major R.E.), and Miss D. M. Bott.

The handbook reminds local authorities of methods by which they can keep building costs down without falling below the post-war standards, and without resorting to shoddy workmanship or materials. It insists that local authorities should not try to save by measures which will make their houses less convenient to live in, less durable, or less resistant to cold, damp or noise.

Among the suggestions is care in pre-planning every stage of site preparation and building so that costly delays are avoided. Normally a year's building programme should be carried out on the minimum possible number of sites. Building twelve houses on one site and twelve on another is normally dearer than building twenty-four on the same site.



Almost two tons of 22 s.w.g. super-purity aluminium, covering 7,500 square feet, were used in roofing a new primary school, above, at Kingsworthy, Winchester, designed by Simpson Low, the County Architect. This is the largest installation of its kind. The conical roll method of jointing was specified. The fixing contractors, Builders Iron & Zincwork, Ltd., found the aluminium suited to the standard hard metal roofing technique employed. Right, stepped flashings to a chimney stack. The metal cost less, at present day prices, than any comparable gauge in any roofing metal.



Local authorities, the handbook adds, should make sure they are not building too many houses of four or more apartments. The fullest possible use must be made of these larger houses once they are built. A policy of decanting "shrinking" families from under-occupied houses should be followed.

There should be a minimum of pure decoration, which the handbook describes as often a substitute for good architectural design. Porches and balconies should not be added solely to improve the elevation. In dirt-laden atmosphere white or coloured washes need too much maintenance. Hedges should be used in place of screen walls and garden walls.

The handbook lists examples of equipment which should always be omitted from local authority houses. These are refrigerators, washing machines, picture rails, wireless and television aerials, locks on living room, kitchen and cupboard doors.

The handbook states that stone can still be used for building where there is a need to maintain employment among local stone masons, or where the cost of stone as a building material does not greatly exceed that of brick. There is a special subsidy for the use of stone when it is called for by the nature of the surroundings.

LCC

Allocation of Houses : No Queue Jumping

At last week's meeting of the LCC Alderman A. R. Stamp, chairman of the housing committee, said there was no justification for suggesting that there had been any queue-jumping in the allocation of the council's houses. He resented the continuance of the term "queue-jumping." The prominence given to it in the recent election was unjustifiable.

BRACKNELL

New Town's Master Plan on View

A public exhibition of the draft master plan of Bracknell New Town will be held at the British Legion Hall, Rochdale Road, Bracknell, Berks., from April 22 to 27. The hours of opening will be from 10 a.m. to 8 p.m., except Saturday (10 a.m. to 6.30 p.m.) and Sunday (12 noon to 6 p.m.).

NFBTE

Gibraltar Association Now Affiliated

The Gibraltar Master Builders Association has become affiliated to the NFBTE. The number of overseas builders' organizations affiliated to the Federation is now nine.

DSIR

Annual Report on Forest Products Research

"Forest Products Research, 1950," published recently by HMSO for DSIR, price 3s., by post 3s. 2d., describes the fundamental research and advisory work carried out at Princes Risborough during the year.

WORK IN PROGRESS AT THE NEW UNIVERSITY

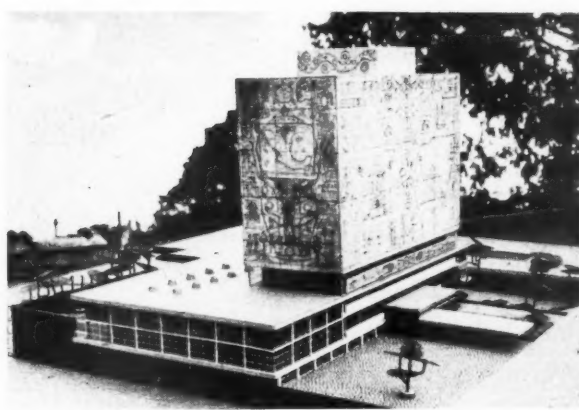


The site for the new University in Mexico is the Pedregal of San Angel, a bed of volcanic lava under which the oldest known civilisation of Mexico once thrived. The University, which has been designed by 150 architects under the direction of Carlos Lazo, involves in its construction most of the problems of a new city. It is designed to be "a place of great beauty as well as a centre of learning," for over a million trees have been planted in the precincts. For the few displaced families who had built their humble homes among the volcanic ashes a new village has been built. The photograph above shows the Faculty of Science under construction. It is shown again below.

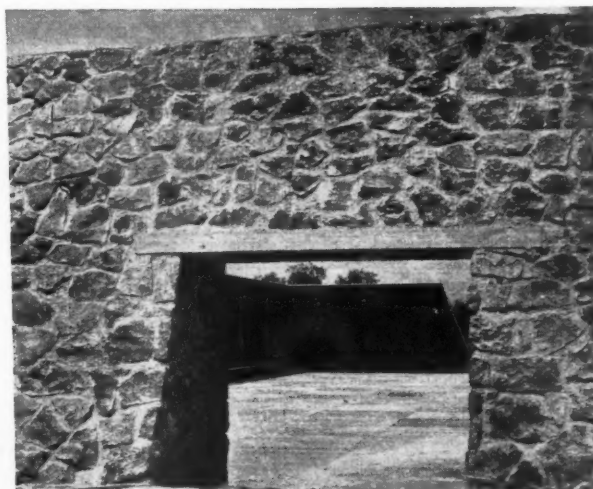
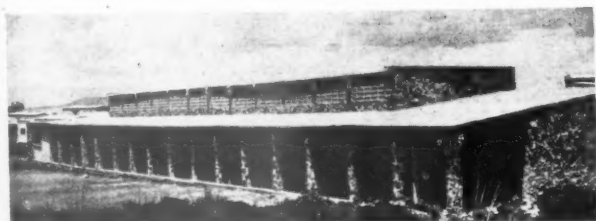
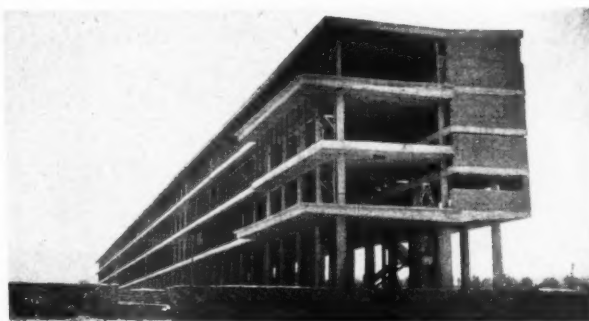


Above
Engine
centra
of the
stadium
thousa
Belov
is to
Philos
left :
childr
which
entran

NEW UNIVERSITY CITY, MEXICO



Above : a model of the National School of Engineering. Above, right : a model of the central library. Right : a model of the layout of the University City. Below : the sports stadium, which is to hold over one hundred thousand spectators, under construction. Below, right : the Humanities Building, which is to house the Faculties of Economy, Law Philosophy and Letters, being built. Bottom, left : top, a school for the displaced villagers' children ; beneath it, a view of the courts in which "frontón" is played. Bottom, right : entrance to one of these courts.



HEMEL HEMPSTEAD

The First New Town to Complete 1,000 Houses

More than a thousand houses have now been completed at the new town of Hemel Hempstead. It is the first new town to build a thousand houses and has been consistently hitting its target of housing production. It is expected that 1,000 houses will be completed during this year and between 1,200 and 1,500 during 1953.

On Wednesday, April 23, Mr. Marples, Parliamentary Secretary to the Minister of Housing and Local Government, will hand over the key of No. 2, Haleswood Road, Adeyfield, to the Corporation's 1,000th tenant, Richard J. Banks. After the ceremony, Mr. Marples will go on a tour of development in the new town accompanied by the new tenant, Richard J. Banks and Henry W. Wells, chairman of the Hemel Hempstead Development corporation.

Her Majesty Queen Elizabeth II will lay the foundation stone of Adeyfield Church on Saturday, July 19.

[Progress to date in Hemel Hempstead New Town was shown in an aerial photograph in an article in the JOURNAL for April 10.]

DIARY

Design and the Public. The Influence of the South Bank and Battersea. Misha Black. At 88, Regent Street, W.1. (Sponsor: Institute of Public Relations.) 6.30 p.m.

APRIL 17

Sculpture in Gardens. Reg Butler. At the Housing Centre, 13, Suffolk Street, S.W.1. (Sponsor: ILA.) 6 p.m.

APRIL 17

Exhibition of Golden Lane Housing Competition Entries. At RIBA, 66, Portland Place, W.1. 10 a.m. to 7 p.m. Saturday: 10 a.m. to 5 p.m.

UNTIL APRIL 19

British Standards and the Architect. Joint lecture by E. D. Mills, P. Cutbush and G. Weston. At RIBA, 66, Portland Place, London, W.1. 6 p.m.

APRIL 22

Survey and Plan for Woolwich Town Centre. Discussion led by Arthur Ling. At 13, Suffolk Street, S.W.1. (Sponsor: HC.) 6 p.m.

APRIL 22

RSI Health Congress. At Margate. *The Organization and Design of Hospital Out-Patient Departments*, Brigadier J. Bigby Welch; *Physical Planning and the Housing Drive*, J. W. R. Adams; *The Discharge of Trade Effluents into Sewers*, W. H. Lockett; *Some Aspects of Housing, with particular reference to Rural Areas*, A. A. Armes; and other papers.

APRIL 22-25

A Review of Current Research in Heating and Ventilating. A lecture by N. S. Billington. At Engineering Centre, 351, Sauchiehall Street, Glasgow. (Sponsor: IHVE, Scottish Branch.) 6.30 p.m.

APRIL 29

Exhibition of Italian Contemporary Architecture. At 66, Portland Place, W.1. (Sponsor RIBA.) Mondays to Fridays: 10 a.m. to 7 p.m. Saturdays: 10 a.m. to 5 p.m.

UNTIL APRIL 30

Amenities in Factory Design. A lecture by Walter R. Bennett. At RSA, John Adam Street, Adelphi, London, W.C.2. 2.30 p.m.

APRIL 30

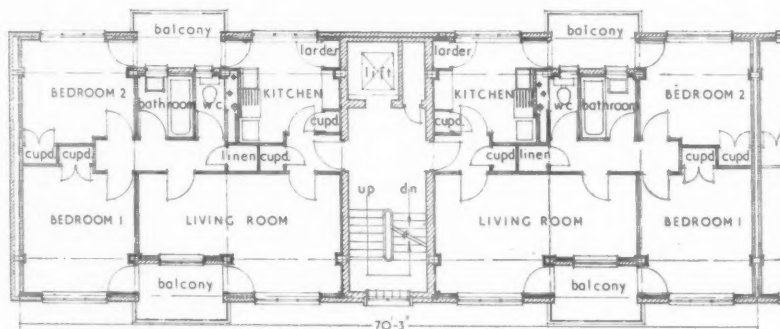
IES Summer Meeting. At Winter Garden Pavilion, Eastbourne. Those wishing to attend should write to: The Secretary, IES, 32, Victoria Street, London, S.W.1.

MAY 20-23

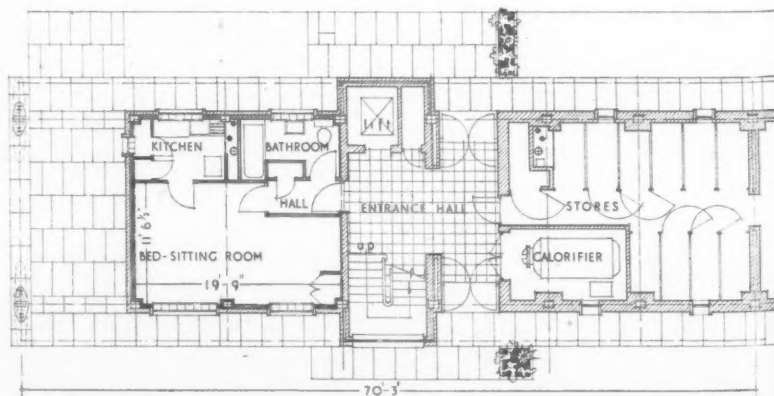
PROPOSED HOUSING SCHEME ON



The Housing Committee of the City Council of Newcastle-upon-Tyne, concerned as to the fullest utilization of the limited area of land available for housing over the next 5 to 10 years, has decided in principle to erect multi-storey flats as well as normal 2- and 3-storey houses and flats. [A year ago the Council authorized the establishment of a Flats Section of the City Architect's Department (George Kenyon, City Architect, Raymond Ash, Deputy City Architect) to collaborate with the Housing Sections.] Unit 4 of the Longbenton Estate, the proposals for which are illustrated here, lies some 3 miles from the centre of the city on the northern perimeter. The site is of 240 acres, of which approximately 150 are available for housing. About 40 acres.



Typical upper floor plan





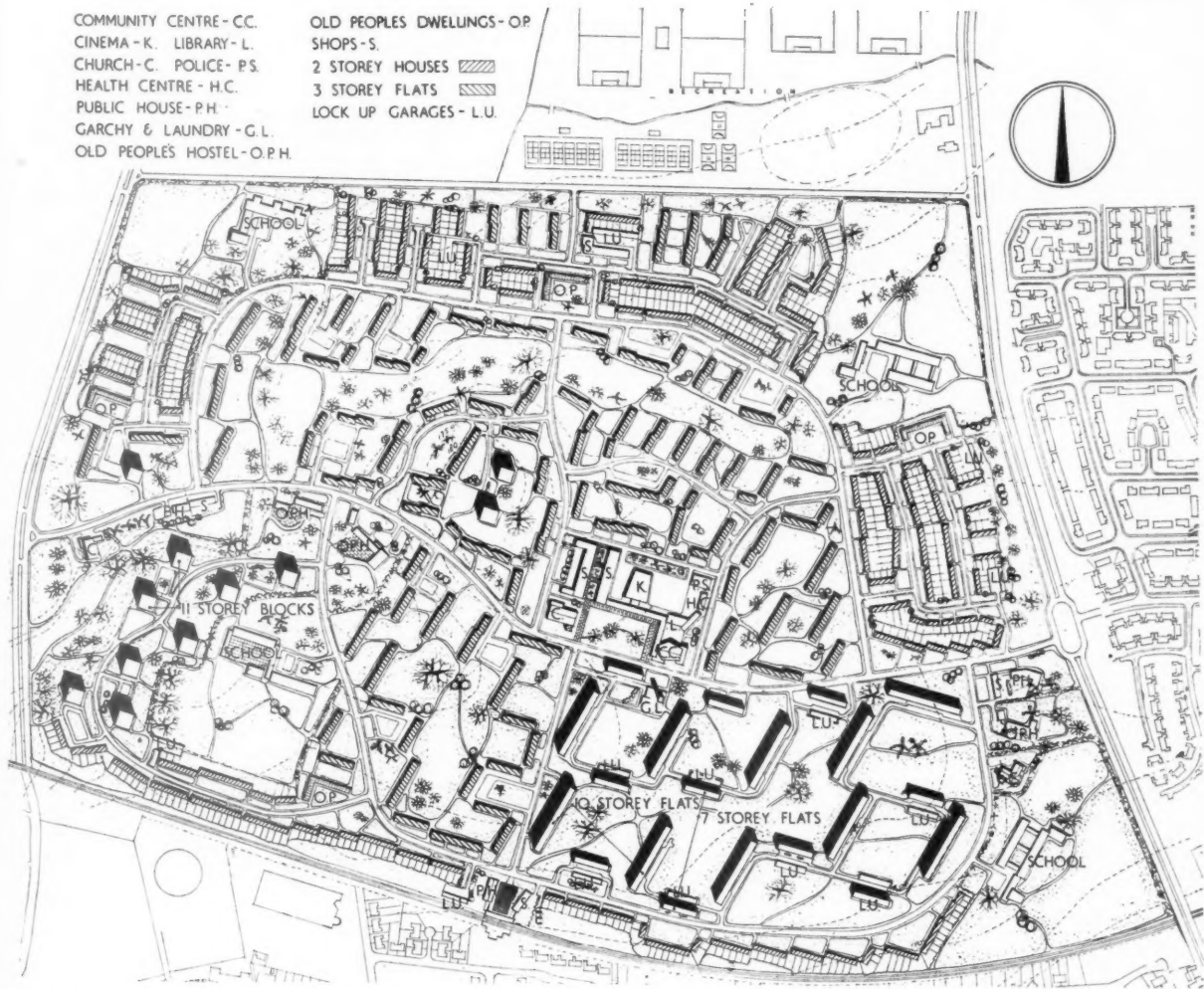
Half ground floor plan, seven-storey block

[Scale: $\frac{1}{8}'' = 1' 0''$]

ON THE LONGBENTON ESTATE, NEWCASTLE-UPON-TYNE

COMMUNITY CENTRE - C.C.
CINEMA - K. LIBRARY - L.
CHURCH - C. POLICE - P.S.
HEALTH CENTRE - H.C.
PUBLIC HOUSE - P.H.
GARCHY & LAUNDRY - G.L.
OLD PEOPLES HOSTEL - O.P.H.

OLD PEOPLES DWELLINGS - O.P.
SHOPS - S.
2 STOREY HOUSES 
3 STOREY FLATS 
LOCK UP GARAGES - L.U.



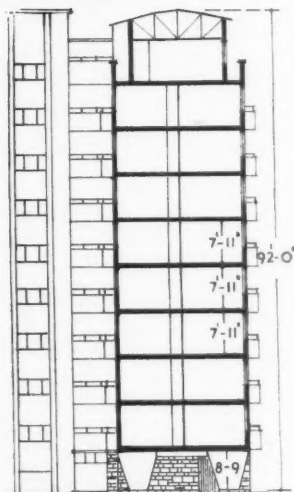
Site plan

will be reserved for schools, 12 acres for homes for aged persons and the balance for shopping centre, churches, public buildings and open spaces. The housing development comprises a first stage of 1,000 flats in 7-storey blocks, seen in the perspective sketch opposite and 10-storey blocks, seen right. Subsequent stages will comprise 3-storey flats, houses with private gardens and a number of 10-storey point blocks. The total number of units will be about 3,200 and the estimated capital cost of the development as a whole will be approximately £7,000,000. The first stage, which has gone out to tender, contains ten 10-storey blocks, each containing 74 flats, and ten 7-storey blocks of 26 flats. The area occupied, 35.6 acres, gives a gross density of 28 flats per acre. Bed-sitting rooms will have a floor area of 340 sq. ft.

(average): 1-bedroom flats, 473 sq. ft.; 2-bedroom flats, 667 sq. ft.; 3-bedroom flats 787 sq. ft. On the main floors each flat will have two balconies and stores are provided at ground level. The stores will have reinforced walls and roof to

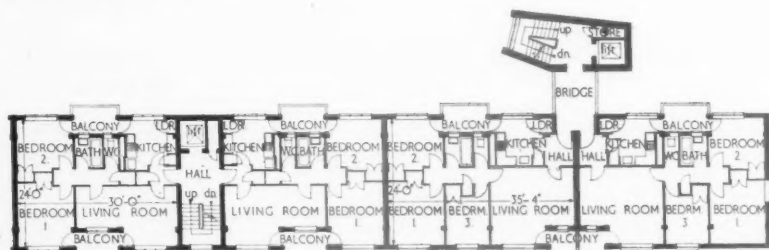


PROPOSED HOUSING AT NEWCASTLE (continued)

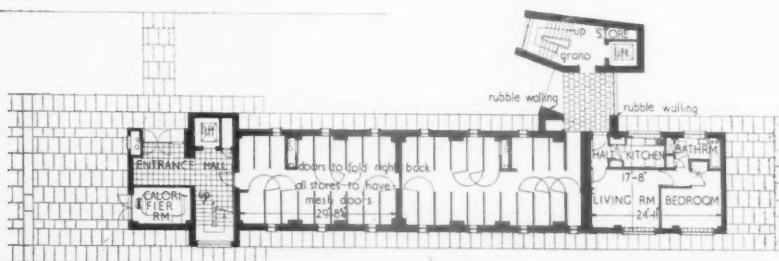


Cross section

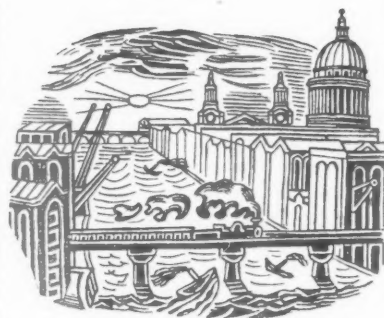
serve as air-raid shelters in accordance with Home Office instructions. All blocks will have passenger lifts in addition to staircases and 104 garages will be provided in the first section. The sketch above shows the central colonnade of a 10-storey block. The design team is: W. A. Horne (Principal Assistant Architect, Flats), A. Fitch, D. H. Cunningham, B. I. R. Bird, J. A. Jarosy. The structural engineer is E. L. A. Czeiler, assisted by A. D. Makuch and T. W. Stevenson.



Typical upper floor plan



Half ground floor plan, ten-storey block

(Scale: $\frac{1}{2}$ " = 1' 0")ERNEST WATKINS
Compensation Cases

So far, the Government has merely nibbled at revision of the Town and Country Planning Act of 1947. The one amendment proposed is contained in the Town Development Bill. It is intended to drop from the 1947 Act the sub-section which allows the Minister to sanction the sale of the freehold of land acquired by a local authority only in exceptional circumstances. Even this looks more like a part of a "property-owning democracy" policy than an amendment of the law of planning. But, if the Government has not yet acted, the LCC has, over one instance.

The LCC is promoting a private Bill dealing with its purchase of Holland House, Kensington, and the surrounding fifty-four acres of open space. A proposal to secure the gardens of Holland House as an open space is admirable, but that is not the primary purpose of the Bill. Its purpose is to allow the LCC to honour its word over the compensation to be paid to the present owners.

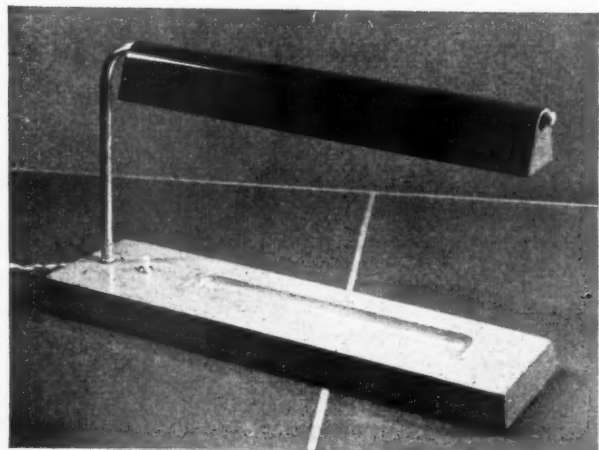
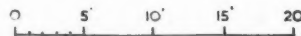
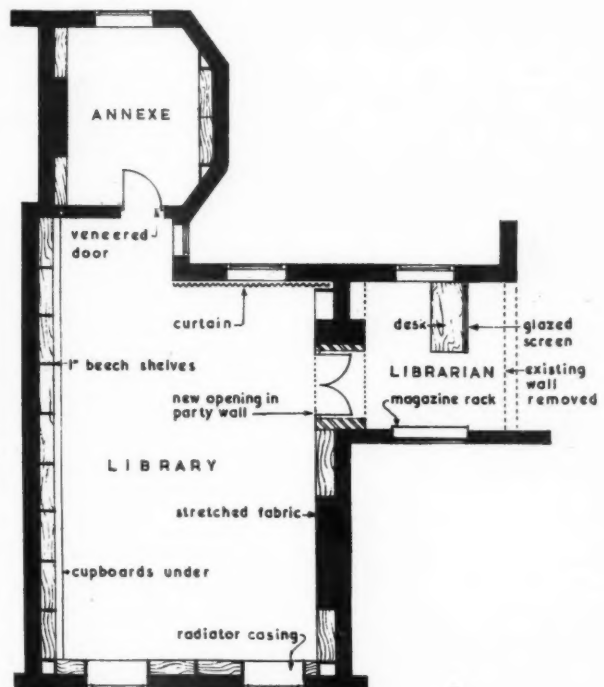
Negotiations for the purchase of Holland House began in 1945. At that time, the LCC was due to compensate the owners on the basis of what the land was worth in 1939, and the value of fifty-four acres of unbuilt-on land in Kensington in 1939 would have been considerable. The negotiations were long drawn out. They had not been concluded by the time the 1947 Act came into operation, and that Act, of course, changed the whole basis of land valuation. In the case of Holland House, all the owner would have received in cash from the LCC would have been the value of an impossibly large residence, standing in grounds far more extensive than it needed when used in that way, and situated, in theory, in an area where the prospects of development were nil—a situation which it is an understatement to call artificial.

The owners of Holland House protested that the LCC was already committed to pay compensation calculated on the basis existing before the 1947 Act was passed. The LCC demurred. The matter went to arbitration and the arbitrator gave an award in favour of the owners. Despite the agreement which the arbitrator found existed, the LCC wondered, quite legitimately, if

L I B
Misha
the ar
buildi
Resear
as con
details
(Vym
curtain
buildi
felt b
underr
spraye
base, e

LIBRARY IN WESTMINSTER

Misha Black and John Diamond (Design Research Unit) were the architects for this floor extension (in an adjoining derelict building) at the National Institute of Economic and Social Research in Dean Trench Street, S.W.1. Right: arranged as conference room with loose table leaves added. Below: details of furniture: table (specially designed), polished beech (Vynide top); chairs (standard type) upholstered to match curtains. Bottom: view through librarian's room (in old building) to library; magazine rack, glass shelves and grey felt backing; glazed screen to desk on right has cupboards underneath. Bottom right: specially designed table lamp with sprayed metal reflector, lacquered brass stem and polished beech base, which is also a pen tray.



the provisions of the 1947 Act did not make it illegal for it to pay out on that basis; whether, if it did, the members of the committee authorizing the payment might not be surcharged personally for the excess payment. In those circumstances, it is easy to understand why the LCC is seeking parliamentary authority to make the payment. That is one effect of the 1947 Act.

ENFORCED INJUSTICE

There is a companion to this story, from Bristol, not involving so large a sum of money, nor so famous a property, but raising exactly the same principle. In January, 1948, before the 1947 Act was in force, the Bristol Corporation served on a property owner in the city a "notice to treat" in respect of his property; that is, the corporation gave notice that it intended to buy his property compulsorily. At that time, the owner, like the owners of Holland House, was entitled to the 1939 value of his property and it was agreed, in later proceedings, that its value, before the 1947 Act stripped it of its development rights, was £16,000. It was also agreed that its value without the development rights was £980, a difference of £15,020. In this case, too, the parties started no negotiations and the negotiations had not been completed by the fatal day, July 1, 1948. From then on, the story is different.

The Bristol owner saw in the 1947 Act a provision that "dead-ripe" land neither paid development charge nor carried a claim on the compensation fund. He assumed that "dead-ripe" land also ranked for compensation at its full value, £16,000. In this belief he obtained a certificate that the land was "dead ripe." The corporation's case was that it had never committed itself to any promise to pay compensation on the pre-1947 Act basis and that, in any case, immediately after July 1, 1948, it became illegal for it to pay anything in excess of the restricted value, £980. The Lands Tribunal, to which the compensation dispute was bound to go, upheld the corporation's contention and awarded £980, no more.

As the law stands, £980 is all the owner will get. When an owner obtains a "dead-ripe" certificate, he loses his claim on the Compensation Fund, and there are no exceptions to that rule (save those made by Bills such as that promoted by the LCC). The Bristol owner has lost both his development rights and his claim on the Fund. He cannot possibly get more than £980 for property which admittedly was, four years ago, worth seventeen times as much, even on a compulsory purchase. Of course, the Bristol Corporation could, as the LCC has, promote a private Bill to allow it to remedy the injustice it has been compelled, by statute, to inflict on one of its citizens. There has been no indication, as yet, that it intends to do so.

THREE STANDS AT THE HOTEL,



On this page and opposite are illustrated three of the stands at the recent Hotel, Restaurant and Catering Exhibition in the National Hall at Olympia. Above and below are two views of the stand for Vine Products, Ltd., designed by Ronald Dickens (associate Richard B. Hornby), which was 30 ft. by 12 ft., raised on a 4-ft. platform,



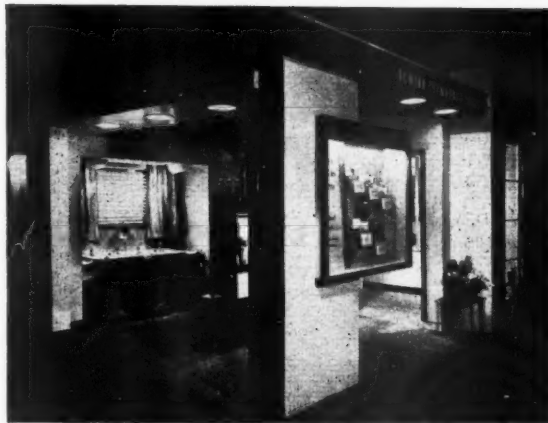
and was divided into three areas, loggia, lounge and bar. One of the main features of the stand consisted of a series of enlarged press advertisements in line and wash by Anton, one of which was presented three dimensionally in a recess at the front of the stand. Three of these can be seen in the photograph above. The loggia was enclosed by a 2-ft. 6-in. grid of 4-in. by 1/2-in. members painted white and used to carry trailing grape vines. The rear wall was painted jasmine yellow, the chairs were white and blue,

RES
and the
with
lounge
platform
from gr
covered
carpet.
1/2-in. t
white a
makore
with ri
had a
and m
general
stand
Waller
graphs
this pa
Newto
Ltd.,
Barma
and h
and
produc
dispen
the st
two p
in the
area f
walls
space

RESTAURANT AND CATERING EXHIBITION AT OLYMPIA

and the plant boxes white with blue studs. The lounge and bar stood on a platform raised 1 ft. 4 in. from ground floor level and covered with a wine coloured carpet. The balusters were $\frac{1}{4}$ -in. tubular steel, painted white and the handrail was makore. The bar was faced with ribbed aluminium and had a grey linoleum top and makore footrail. The general contractors for this stand were G. & W. Waller, Ltd. The photographs top and centre of this page are of the stand for Newton Chambers & Co., Ltd., designed by Christian

Barman to display a series of cleaning and hygienic products for use in hotels and catering establishments. These products included a new washing cream dispenser designed by the architect of the stand. The stand was divided into two parts; a demonstration area, seen in the centre photograph, and a display area for other products, seen above. The walls and columns in the demonstration space were finished in flat oil paint,



the colours were white, light blue and vermilion, and in the display area the walls were papered. All joinery was in beech, wax polished. The general contractors were Beck & Pollitzer, Ltd. On the left is a view of the stand for Hussmann British Refrigeration, Ltd., who are suppliers and manufacturers of refrigerated display and storage units for use in cafeterias and self-service restaurants. Bright contrasting colours were used as a background to show off the clean lines of the units. The stand was designed by Ian Baker and the general contractors were Pictorial Display, Ltd. For sub-contractors, see page 500.

OFFICES

at THE HAGUE, HOLLAND

designed by D. ROOSENBURG, P. VERHAVE, and J. G. E. LUIJT

An office building for the central administration of KLM, the Dutch airline, was begun in 1939, when wing 4 (see site plan) was completed, but due to the war was not occupied by the clients until 1946. The remainder of the scheme was commenced in 1946 and now accommodate 1,800 employees and has direct communication to Schipol airport and the firm's branch offices in Amsterdam and Rotterdam. Wing 4 forms a self-contained building, with two entrances, four lifts and a restaurant and since the completion of the scheme has been let temporarily to an oil company.

• *View looking east across the Raamweg Canal.*



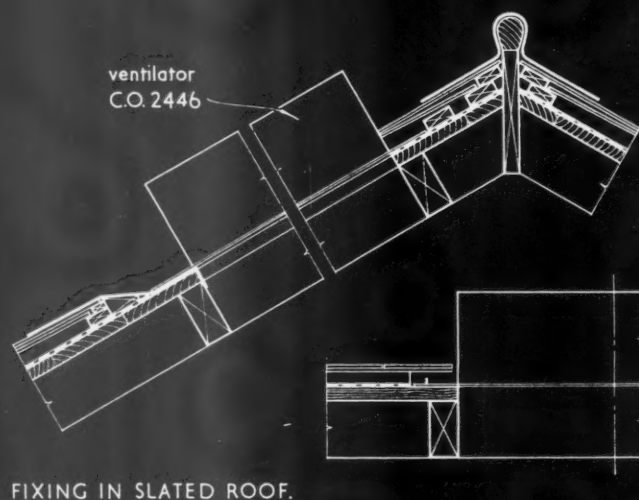
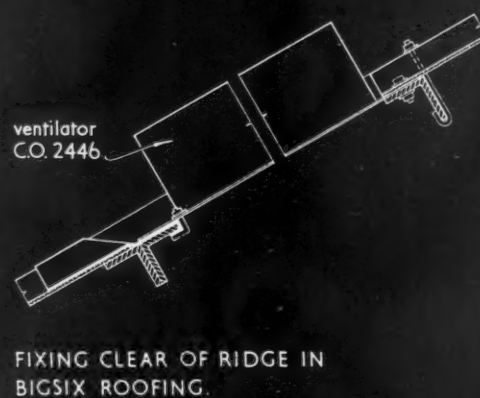
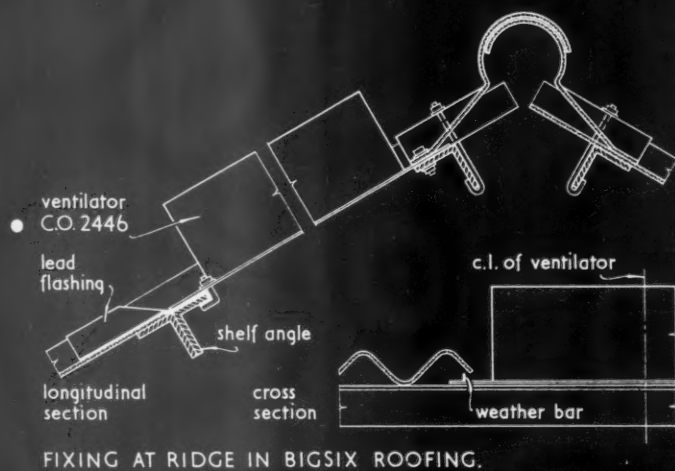
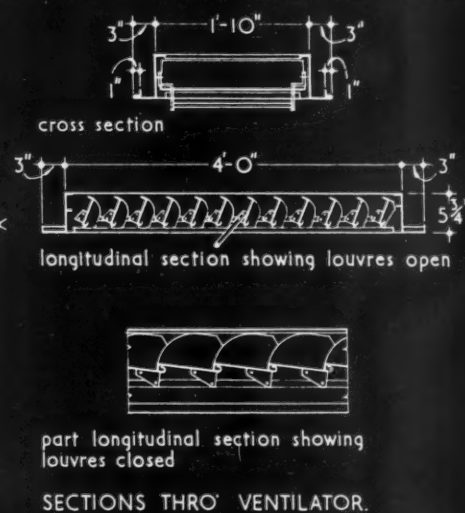
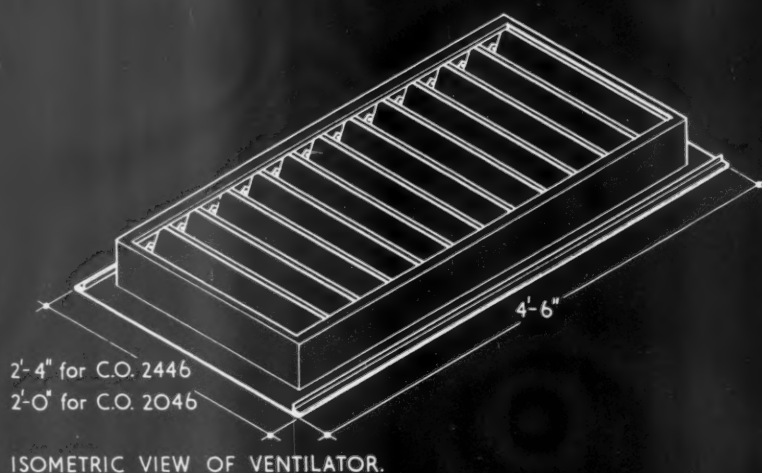
hen
46.
has
am.
the
anal.

VENTILATION | NATURAL

The Architects' Journal Library of Information Sheets 359. Editor: Cotterell Butler, A.R.I.B.A.

30.D12

30.D12



30.D12 COLT C.O. 2446 AND C.O. 2046 EXTRACT VENTILATORS

This Sheet, the third of a series dealing with Colt ventilators, describes the Colt C.O.2446 and C.O.2046 clear-opening ventilators. The ventilators can be fixed in any type of roofing (including glazing) or wall: the drawings on the face of the Sheet give a general view and sections of the ventilators, together with details of typical fixings.

General

The ventilators are designed to provide the maximum unobstructed air space when fully open. When closed they are rainproof: channels at the sides carry the rainwater on to the lower part of the roof. The ventilators may be fixed singly or in pairs or may be arranged in batteries.

Sizes

The sizes of both ventilators are given on the face of the Sheet.

Material

The material used is anti-corrosive hardened aluminium.

Controls

The ventilator louvres are mounted in aluminium alloy bearings and connected to an aluminium control bar. The bar is operated manually by cord or chain, or it may be connected to remote control gearing for working one or more ventilators.

Air Inlets

For the ventilators to work efficiently adequate fresh air inlets are essential and the total free area of inlets should be approximately double that of the extracts.

Fixing

Owing to their light weight, the ventilators can be fixed in any part of the roof without additional roof reinforcement. Typical fixing details are shown on the face of this Sheet.

Applications

The ventilators are recommended for foundries, laundries and other works where large quantities of hot or foul air, fumes, etc., have to be removed quickly.

Fixing Service

A service is provided for fixing Colt ventilators in any part of the country.

Further Information

The manufacturers maintain a technical department and testing laboratory, together with an outside technical staff, resident in all the main centres throughout the country, who are available to answer questions and advise on technical problems and carry out site surveys.

The manufacturers also supply a comprehensive manual giving full technical details and containing nomograms from which the requisite number of ventilators can be calculated for any particular problem.

Compiled from information supplied by:

Colt Ventilation Limited.

Address: Surbiton, Surrey.

Telephone: Elmbridge 6511-5.

Telegrams: Coltile, Phone, London.

Copyright Reserved.

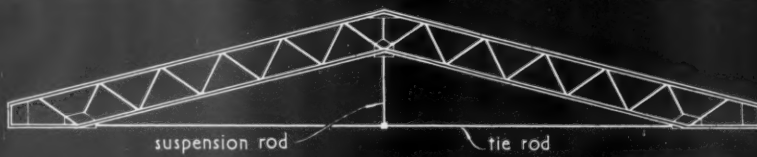
The Architects' Journal Library of Information Sheets.

Editor: Cotterell Butler, A.R.I.B.A.

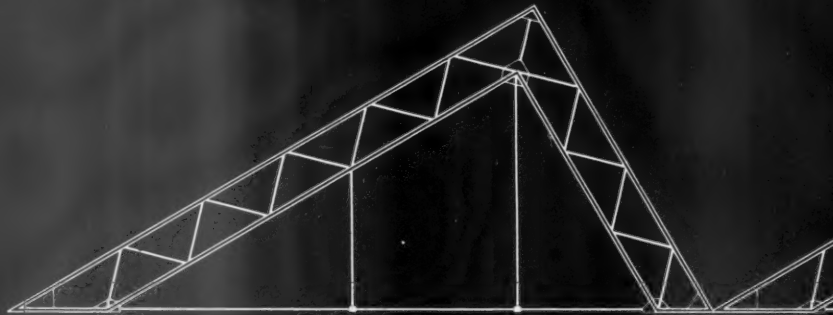
FLOOR AND ROOF STRUCTURAL ELEMENTS | STEEL

20.CII

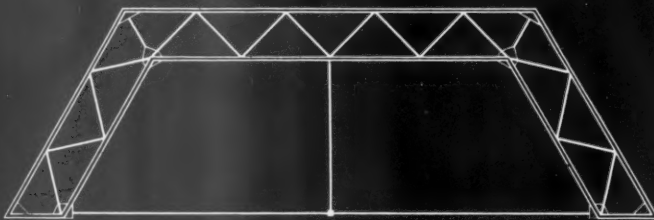
The Architects' Journal Library of Information Sheets 360. Editor: Cotterell Butler, A.R.I.B.A.



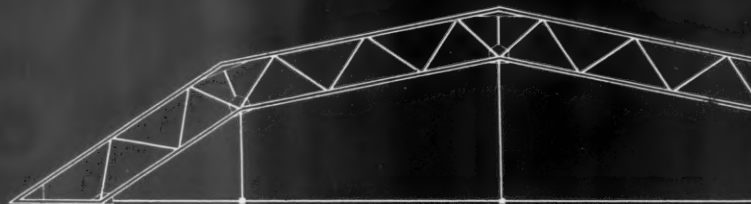
pitched roof truss (min. pitch 14°)



northlight roof truss



mansard roof truss

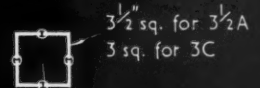


truss to take curved roofing

TYPICAL TRUSSES.



1'-2" for 3C
1'-5" for 3½A

COLUMNS TYPE 3½A AND 3C.
(for max. loads see reverse of Sheet)

1'-2" for 6C, 6D
1'-5" for 6A, 6B

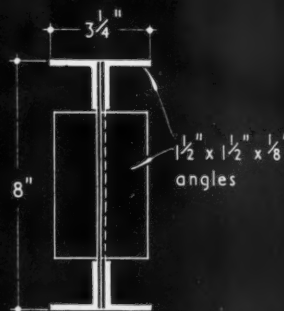
1¼" x 1¼"
x 3/16" angle



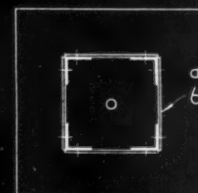
fillet
welds at
intervals



STANDARD TYPES OF PURLIN.



type 8D beam (see Sheet 20.CIO)

COLUMNS TYPE 6A, B, C AND D.
(for max. loads see reverse of Sheet)

20.C11 'SOMMERFELDS' HIGH-TENSILE STEEL TRUSSES, PURLINS AND COLUMNS

This Sheet is the second of two dealing with structural components fabricated from light high-tensile steel sections. It describes trusses, purlins and columns. Beams are dealt with on Sheet 20.C10.

Material

The material used is re-rolled Railsteel.

Trusses

Trusses built up from the beams shown on Sheet 20.C10 may be used for spans rather larger than those which can be dealt with by a single beam or where a pitched or curved roof is required. Typical examples are given on the face of this Sheet but any design of truss to suit specific requirements is possible.

Purlins

Standard types of purlin are shown on the face of this Sheet.

The purlin may be a single $1\frac{1}{2}$ in. by $1\frac{1}{2}$ in. by $\frac{1}{8}$ in. angle for spans up to 6 ft. 6 in. max.; two similar angles welded together to form a channel for spans up to 12 ft. 6 in. max.; a size 8D beam (see Sheet 20.C10) for spans up to 17 ft. 6 in. max.

Columns

Each column is made from four angles, the size of angle being designated for convenience by letters, as follows:—

A = $1\frac{1}{2}$ in. by $1\frac{1}{2}$ in. by $\frac{1}{8}$ in.

B = $1\frac{1}{2}$ in. by $1\frac{1}{2}$ in. by $\frac{1}{8}$ in.

C = $1\frac{1}{2}$ in. by $1\frac{1}{2}$ in. by $\frac{1}{8}$ in.

D = $1\frac{1}{2}$ in. by $1\frac{1}{2}$ in. by $\frac{1}{8}$ in.

Two standard types of column are available, 3 or $3\frac{1}{2}$ in. square and 6 in. square.

3 or $3\frac{1}{2}$ in. column: This type of column is suitable for lightly-loaded roofs at no great height, and is made up from angles A ($3\frac{1}{2}$ in.) or C (3 in.). Four angles are welded at intervals to form a box section, as shown on the face of the Sheet.

Maximum heights and loads are given below.

| Height | Max. load in tons for inner columns | | Max. load in tons for outer columns | |
|-----------|-------------------------------------|------|-------------------------------------|------|
| | 3½ A | 3C | 3½ A | 3C |
| 11 ft. .. | — | 3.78 | — | 3.14 |
| 13 ft. .. | 4.40 | — | 3.69 | — |

6 in. column: This type of column is suitable for most constructions and is made up from four angles (A, B, C or D) battened together with plates, as shown. The maximum heights and loads are given in the tables below.

| Height | Max. load in tons for inner columns | | | |
|------------------|-------------------------------------|-------|-------|-------|
| | 6 A | 6 B | 6 C | 6 D |
| 10 ft. .. | 13.60 | 12.20 | 16.00 | 10.40 |
| 12 ft. 6 in. .. | 13.70 | 9.00 | 12.80 | 7.65 |
| 15 ft. .. | 11.40 | 7.48 | 9.75 | 6.37 |
| 17 ft. 6 in. .. | 8.75 | 5.73 | 7.54 | 4.90 |
| 20 ft. .. | 7.21 | 4.58 | 6.00 | 3.90 |
| *25 ft. 6 in. .. | 4.40 | 2.88 | 3.78 | 2.46 |

* Maximum height permissible.

| Height | Max. load in tons for outer columns | | | |
|-----------------|-------------------------------------|------|------|------|
| | 6 A | 6 B | 6 C | 6 D |
| 10 ft. .. | 11.00 | 7.25 | 9.60 | 6.30 |
| 12 ft. 6 in. .. | 9.10 | 6.00 | 8.33 | 5.15 |
| 15 ft. .. | 8.00 | 5.30 | 6.90 | 4.55 |
| 17 ft. 6 in. .. | 7.10 | 4.35 | 5.72 | 3.75 |
| *20 ft. .. | 5.67 | 3.65 | 4.80 | 3.14 |

* Maximum height permissible.

Finish

In addition to the normal steelwork finishes, e.g., red oxide on wire-brushed steel, a special finish is available. This consists in principle of the chemical and mechanical removal of all rust and scale followed by one or two coats of primer and/or synthetic enamel. The use of this finish considerably reduces maintenance.

Further Information

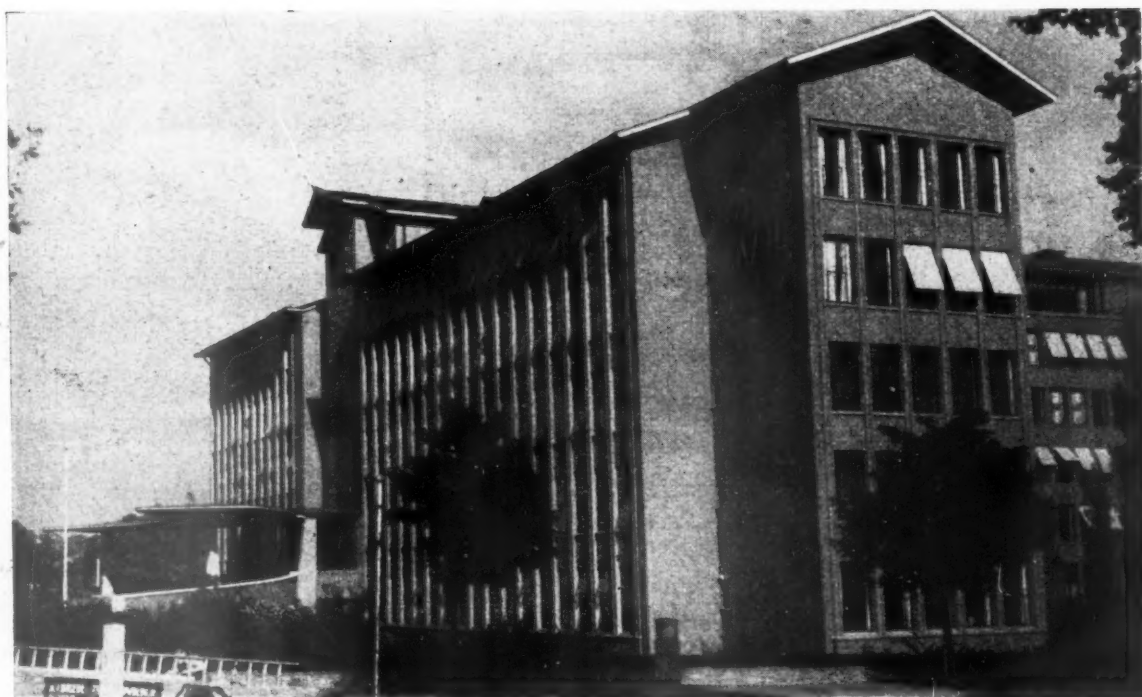
The manufacturer maintains a technical department which is prepared to advise on technical problems dealing with this subject.

Compiled from information supplied by:

Sommerfelds Ltd.

Address: Wellington, Shropshire.
Telephone: Wellington 1000 (5 lines).
London Office: 167, Victoria Street, S.W.1.
Telephone: Victoria 1000.

Copyright Reserved.
The Architects' Journal Library of Information Sheets.
Editor: Cotterell Butler, A.R.I.B.A.



Above, the north-west facade of wing 1 from the bridge over the Raamweg canal.

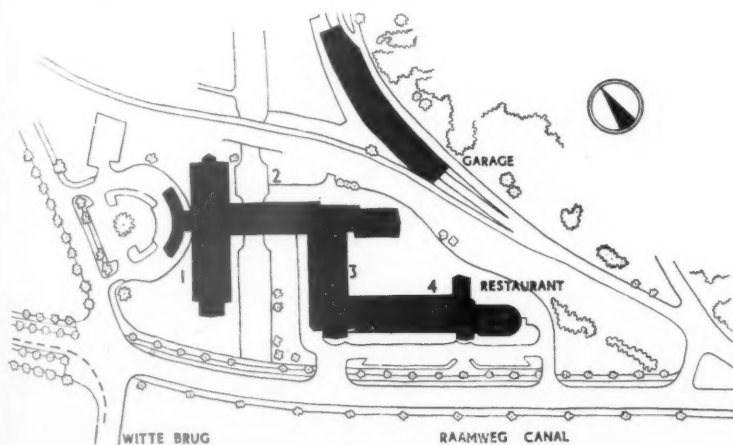
SITE.—The building is situated at an important cross-roads where the business and residential quarters of The Hague meet, and has a good view of the surrounding parks. To take advantage of this the architects designed the building to the maximum permitted height of 68.9 ft. A branch of the Raamweg Canal crosses the site and by a recession of wing 2, which bridges this branch canal, the architects have formed an interesting garden courtyard, open to the south-west. Garages for 1,000 cycles and 15 cars are built into the side of a small hill to the north-east of the site.

PLAN.—The total office space is 107,639 sq. ft. with another 32,392 sq. ft. for secondary services.

The main access for the public leads up a curved ramp to the entrance canopy, above which rises the central feature of wing 1, a double lift shaft whose exterior is decorated with birds in brick relief. The main office areas are multiples of the module of 35.4 in., which is small, but allows great flexibility of subdivision. The internal partitions, which are made in five interchangeable types, can be dismantled in two hours per floor. In the basement are boiler rooms, circulation pumps, electric switch and control rooms, air conditioning plant, a cinema, post office and telephone exchange with 1,500 lines. The ground floor is mainly in wing 4, as the main entrance is at first floor level, the same level as the bridge over the branch canal. Leading off wing 4 is a restaurant with terrace overlooking the main canal, and a gymnasium with changing rooms for both sexes leads off wing 2. On the first floor are offices, rooms for medical and psychological services, laboratories, automatic record filing machines, inquiry rooms, and cloakrooms. On the second, third and fourth floors are the main offices for administration, advertising and general management, as well as conference rooms. On the fifth floor of wing 2 is a self-service canteen.

CONSTRUCTION.—Steel frame on a structural grid of 5.9 ft. Columns are encased in concrete and external walls are of concrete, brick faced. Ground floor is monolithic concrete, on which the steel

D





OFFICES

at THE HAGUE, HOLLAND

designed by D. ROOSENBURG, P. VERHAVE, and J. G. E. LUIJT

Above, left, looking down from the 5th floor at the junction of wings 2 and 3, with garden court below. Top, right, the north west facade and main entrance in wing 1. Above, the restaurant, a single storey projection on the ground floor of wing 4.

skeleton rests, while upper floors are of prefabricated RC slabs, 5.9 ft. by 1.47 ft., resting on beams at 5.9-ft. centres. Roofs are a metal frame construction. Internal partitions are of concrete blocks.

FINISHES.—The facing bricks are a light reddish-brown and vertical emphasis is given by double ribs to window surrounds, which are of vibrated concrete, prefabricated in sections, with a brick in-filling. Suspended ceilings are of 5.9 ft. sq. concrete slabs mixed with a volcanic sand and similar slabs are used on roofs, waterproofed with asphalt and with a final skin of copper sheets. Movable partitions are

made of double sheets of aluminium with cork insulation between and safety glass panels.

SERVICES.—There are three oil-fired boilers and hot water radiators are installed throughout the building, except in the restaurant, which has radiant heating pipes in the floor. A system of light signals is installed throughout the building, by which each senior staff member has his own signal in the form of a combination of geometric shapes. Although the panels are small, sixty different combinations are possible. Air conditioning is provided in the restaurant, cinema and conference rooms.

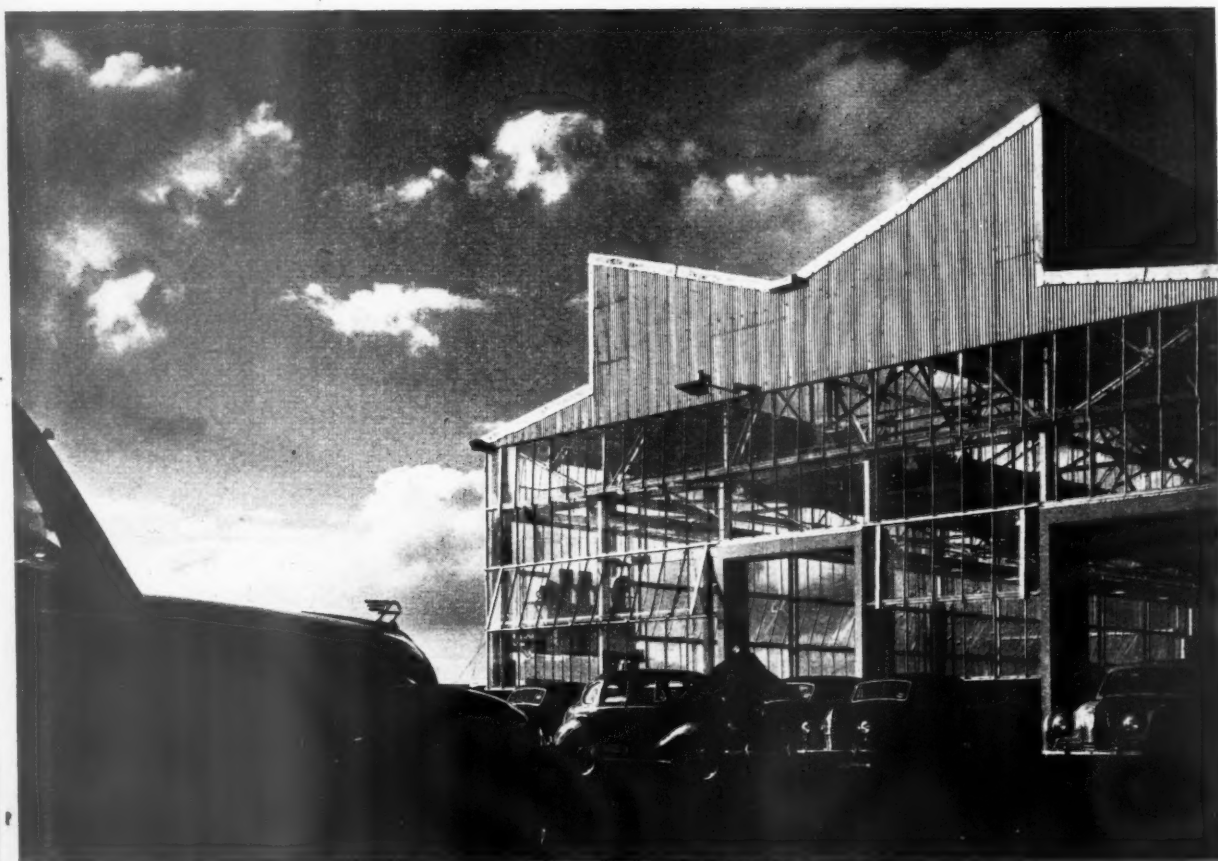
FACTORY EXTENSION

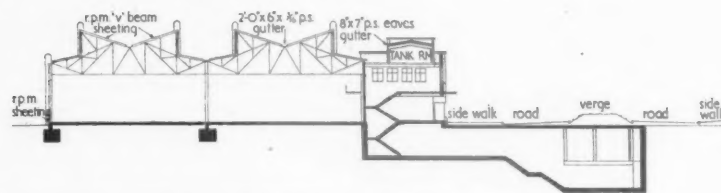
at LONGBRIDGE, BIRMINGHAM

designed by C. HOWARD CRANE

The new car assembly building for the Austin Motor Co. Ltd. has been built to receive component parts and accommodate four assembly lines, as well as offices, lavatories, locker rooms and first-aid room. The site was originally an aerodrome and had a convex surface which needed to be levelled. The original works are at a lower level, enabling a new bridge and tunnel to feed axles, engines, etc., to the underside of the assembly lines in the new building.

The south-west elevation.





Cross section through assembly building (Scale: $\frac{1}{4}$ " = 1' 0")

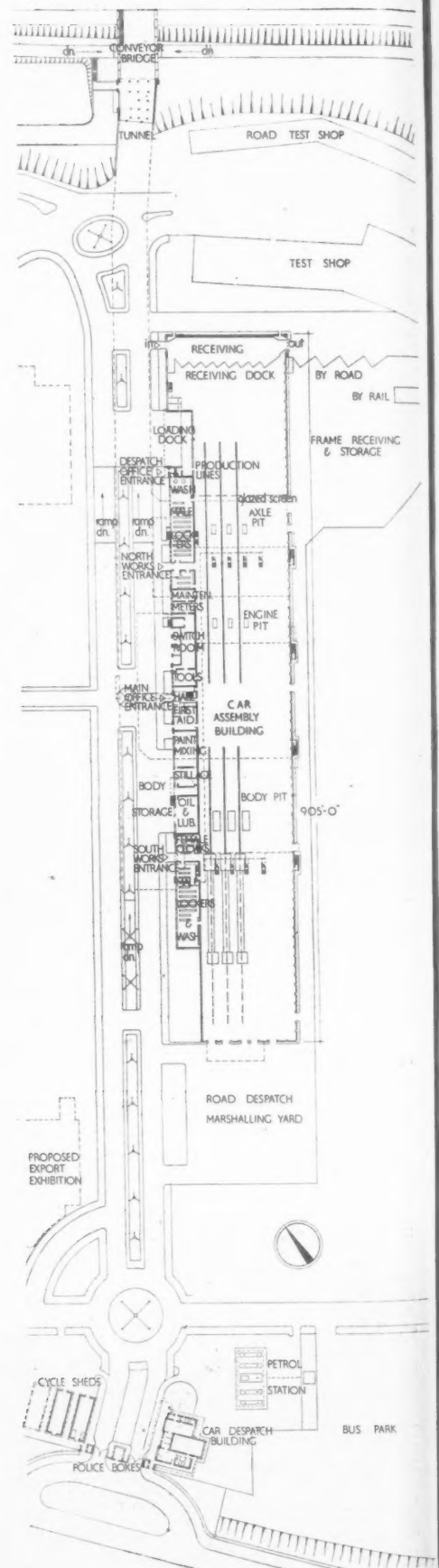
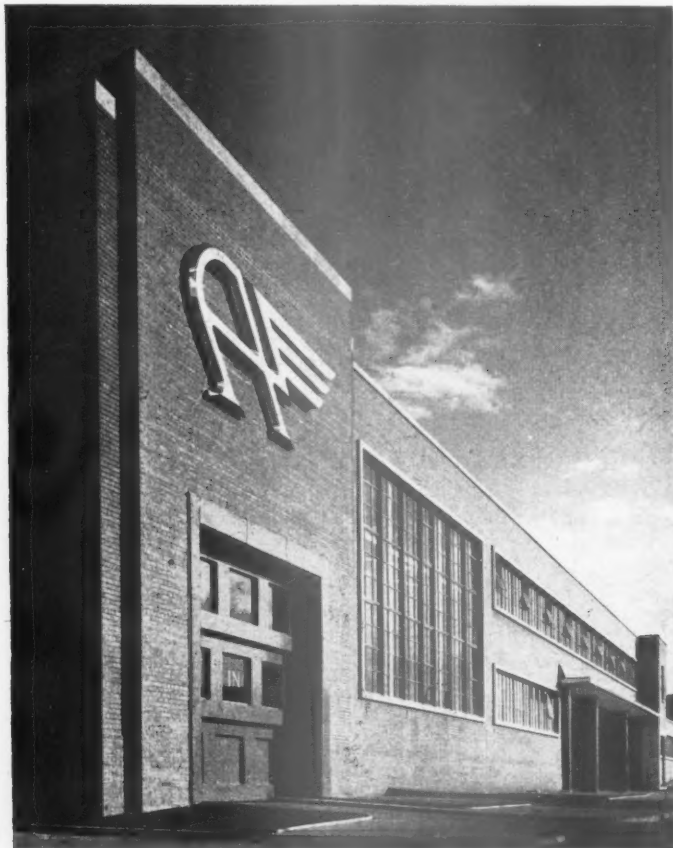
PLAN.—The length and number of assembly lines controlled the shape of the building and there is a saw-toothed receiving dock for component parts and shipping dock for export parts. Possible extensions on the east side and at the south end have been allowed for. Toilets are provided over the assembly lines, with staircase and balcony access.

CONSTRUCTION.—The building is steel framed, and the external wall to the main facade is brick. Elsewhere, vertical glazing with aluminium frames.

FACTORY EXTENSION

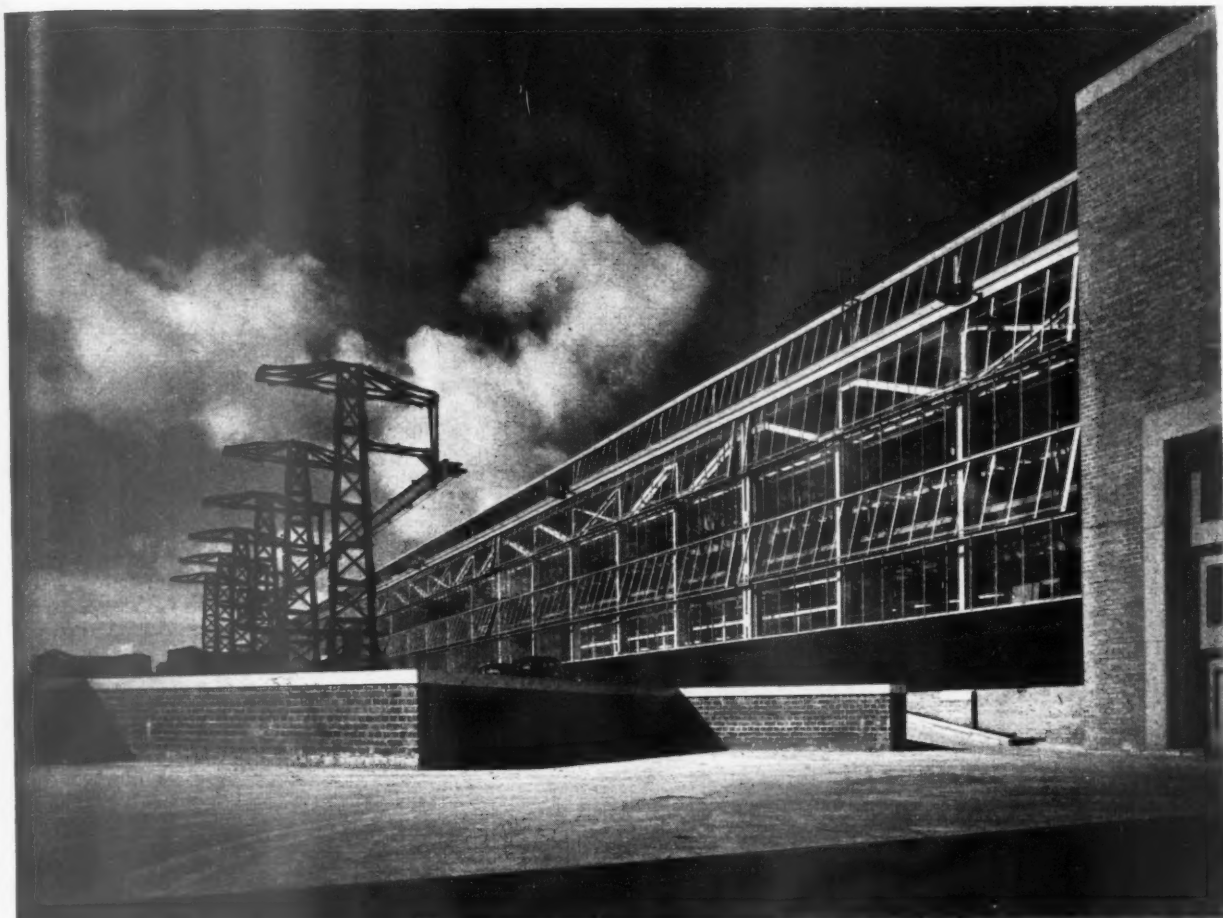
at LONGBRIDGE, BIRMINGHAM
designed by C. HOWARD CRANE

Below, the north end of the north west facade.



Plan (Scale: $\frac{1}{32}$ " = 1' 0")

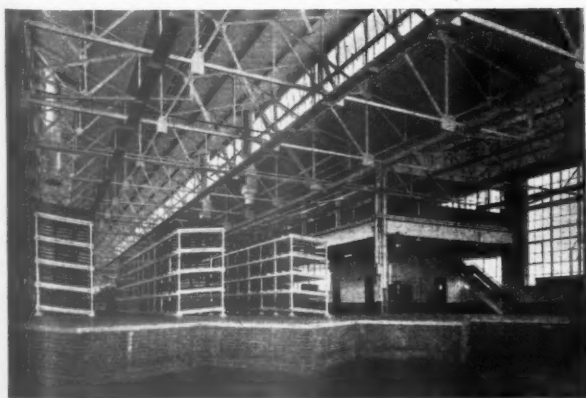
Above, east facade dock for building justed. lavatori



Above, looking south-west at the south-east facade. Below, the saw-toothed dock for receiving component parts. Below, right, the east side of the assembly building where imperfect cars are adjusted. The stairs on the right lead to lavatories above.

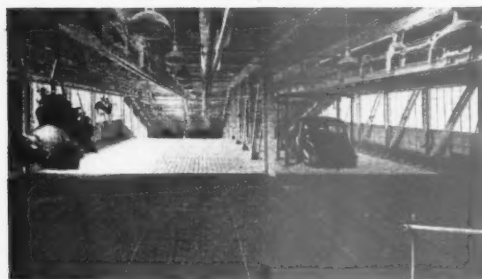
Monitor roof lighting gives maximum daylight in the works. The main assembly floor is constructed of concrete with road fabric and suspended floors and flat roofs are of reinforced concrete. The bearing qualities of the site varied from rock and stiff clay to sand, and piling had to be used in places.

FINISHES.—The main roof is of protected metal sheeting with an insulating board lining carried on purlins. The north-west elevation is of facing





Left, the conveyor bridge leading to the original works at a lower level. Centre, left, interior of the bridge looking upwards. Centre, right, the conveyor tunnel under the dual carriageway.



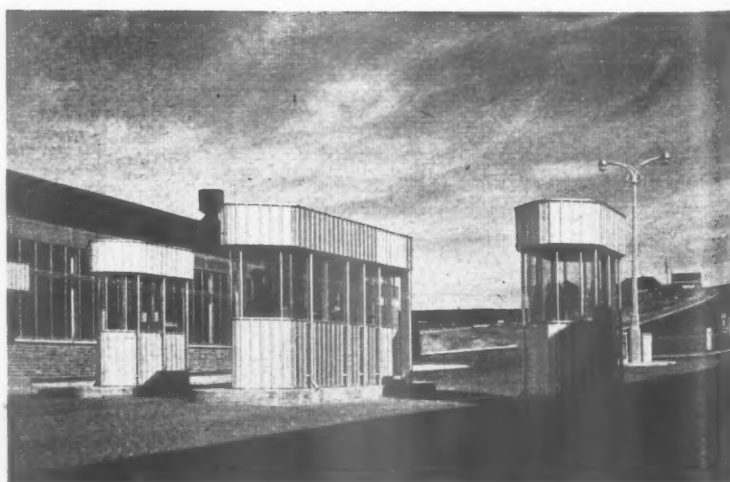
FACTORY EXTENSION

at LONGBRIDGE, BIRMINGHAM
designed by C. HOWARD CRANE

bricks, with stone dressings and aluminium windows. The central doors are of armour-plate glass; elsewhere doors are steel. Internal partitions are standard steel, glazed. Walls are of fair faced painted brickwork internally. Floors: granolithic in the assembly area, thermoplastic tiles in offices and locker rooms, quarry tiles in lavatories, terrazzo on staircases. Staircases have aluminium balustrading.

SERVICES.—Heating of the main building is by unit heaters and elsewhere by radiators. Fluorescent lighting is provided over the assembly lines. Drains and roads allow for future development of the site. The general contractors were W. J. Whittall & Sons. For sub-contractors see page 500.

Below, looking south-west from main entrance, showing aluminium police boxes.



TECHNICAL SECTION

Last year O'Neil Ford, the Texan architect, described "slab lifting" to a somewhat sceptical audience of architects, engineers and contractors. (See JOURNAL for July 12, 1951). No fault has been found with this system of construction and it is now widely used in the USA, but no one in this country has yet given it a trial.

One of the reasons, no doubt, is the fact that the system uses more materials than conventional RC work, although it saves labour—an advantage in the USA, but a disadvantage here. An important new development (described on pages 497 and 499) is the lifting of slabs consisting largely of hollow concrete blocks. This is, naturally, more economical, both in cement and steel, and should make the use of slab lifting a more practical proposition in this country. Who will be our first architect to take advantage of this rapid and exciting method of building?

R. FITZMAURICE

25 WATER SUPPLY & SANITATION one-pipe plumbing

This week's
special feature

The number preceding the week's special article or survey indicates the appropriate subject heading of the Information Centre to which the article or survey belongs. The complete list of these headings is printed from time-to-time. To each survey is appended a list of recently-published and relevant Information Centre items. Further and earlier information can be found by referring to the index published free each year.

In this week's leading article, on page 475, the need for research into one-pipe plumbing is stressed. To indicate one line of profitable development, the following report deals with some preliminary experiments carried out by Birmingham architecture students on some new municipal flats at Wolverhampton. Although the experiments are not conclusive, they suggest that further research might prove that one-pipe plumbing could be simplified without reducing its efficiency.

Fourth year students of the Birmingham School of Architecture have carried out recently an important series of tests on one-pipe plumbing. Having designed, as part of their syllabus, three-storey blocks of flats with one-pipe plumbing, they felt it would be extremely useful to determine the real value of and need for conventional

systems of waste and soil branch ventilation pipes.

Through the courtesy of Mervyn Law, Wolverhampton's Borough Engineer, and the architect, A. G. E. Chapman, the students obtained permission to make their tests on a completed section of Wolverhampton Corporation flats at Warstones Drive, which had not then

TESTS CARRIED OUT ON A "ONE-PIPE" SYSTEM OF PLUMBING

| Test No. | Conditions of test Pipes as installed | Fittings discharged (marked "D") Loss of Seal in inches (readings taken only where shown) | | | | | | | | | | | |
|----------|---|--|-------|------|------|-------------|-------|------|------|--------------|-------|------|------|
| | | Ground floor | | | | First floor | | | | Second floor | | | |
| | | Bath | Basin | W.C. | Sink | Bath | Basin | W.C. | Sink | Bath | Basin | W.C. | Sink |
| 1 | No paper used in w.c's. X branch blocked. | D | D | D | D | 0" | 0" | X | 0" | D | D | D | D |
| 2 | Paper used [that on ground floor not flushed away]. X Branch blocked. | D | D | D | D | 0" | 0" | X | 0" | D | D | D | D |
| 3 | No paper used in w.c's. | D | D | D | D | 0" | 0" | 0" | 0" | D | D | D | D |

FIRST FLOOR BRANCH VENTS RENDERED INEFFECTUAL

| | | | | | | | | | | | | | |
|----|---|---|---|---|---|----|----|----|----|---|---|---|---|
| 4 | All fixtures plugged on the ground floor. | | | | | 0" | 0" | 0" | 0" | D | D | D | D |
| 5 | All fixtures plugged on the ground floor. All fixtures unplugged on the first floor. | | | | | 0" | 0" | 0" | 0" | D | D | D | D |
| 6 | All fixtures plugged on ground floor. Six pieces of newspaper in 2nd floor w.c. Mop used in flushing. | | | | | 0" | 0" | 1" | 0" | D | D | D | D |
| 7 | All fixtures plugged on ground floor. All fixtures unplugged on the 1st floor. 2nd fl. bath overflowing | | | | | 0" | 0" | 0" | 0" | D | D | D | D |
| 8 | 2nd and ground floor baths overflowing. [Packet of sandwiches in ground floor w.c. not flushed away.] | D | D | D | D | 0" | 0" | 0" | 0" | D | D | D | D |
| 9 | 2nd and ground floor baths overflowing. | D | D | D | D | 0" | 0" | 0" | 0" | D | D | D | D |
| 10 | Bucket of water flushed in 2nd and ground floor w.c's at peak of discharge. | D | D | D | D | 0" | 0" | 1" | 0" | D | D | D | D |

GROUND AND FIRST FLOOR VENTS RENDERED INEFFECTUAL

| | | | | | | | | | | | | | |
|----|--|----|------|-----------|----|----|--------|----|--------|---|---|---|---|
| 11 | No paper used in w.c's. | D | D | D | D | D | D | D | D | D | D | D | D |
| 12 | No paper used in w.c's. | D | 1/4" | D | D | D | D | D | D | D | D | D | D |
| 13 | No paper used in w.c. | 0" | 0" | 0" | 0" | 0" | 0" | 0" | 0" | D | D | D | D |
| 14 | Ground floor discharges 5 seconds before 2nd floor fittings. 1st floor fittings plugged. | D | D | D | D | 0" | 0" | 0" | 0" | D | D | D | D |
| 15 | Ground floor discharges 5 seconds before 2nd floor fittings. 1st floor fittings unplugged. | D | D | D | D | 0" | 1/4" | 0" | 0" | D | D | D | D |
| 16 | No paper used in w.c's. | 0" | 0" | D | 0" | 0" | 0" | D | 0" | | | D | |
| 17 | W.c's flushed by bucket. No paper used at peak of discharge. | 0" | 0" | 0" | 0" | 0" | 0" | D | 0" | | | D | |
| 18 | W.c's flushed by bucket. Paper used at peak of discharge. | 0" | 0" | blow back | 0" | 0" | 1 1/4" | D | 0" | | | D | |
| 19 | W.c's flushed by bucket. Paper used at peak of discharge. | 0" | 0" | blow back | 0" | 0" | 1/2" | D | 0" | | | D | |
| 20 | W.c's flushed by bucket. No paper used at peak of discharge. | 0" | 0" | blow back | 0" | 0" | 1" | D | 0" | | | D | |
| 21 | No paper used. | 0" | 0" | 0" | 0" | 0" | 0" | D | 0" | | | D | |
| 22 | Flushing in 1 second intervals in order—2nd, 1st, ground floor. | 0" | 0" | D | 0" | 0" | 0" | D | 0" | | | D | |
| 23 | Fittings discharged in order of floors at 1 second intervals. 2nd, 1st, ground floor. | D | D | D | D | D | D | D | D | D | D | D | D |
| 24 | Vent STACK BLOCKED above roof level. | 0" | 0" | 0" | 0" | D | D | D | D | D | D | D | D |
| 25 | Vent STACK BLOCKED above roof level. First floor basin unplugged. | 0" | 1" | 0" | 0" | D | 1 1/4" | D | 1 1/2" | D | D | D | D |

THE TROUBLE

The structural steel of a tubing manufacturer's new pickling shop was exposed to strong acidic vapour: how could the steel be protected against damaging corrosion?

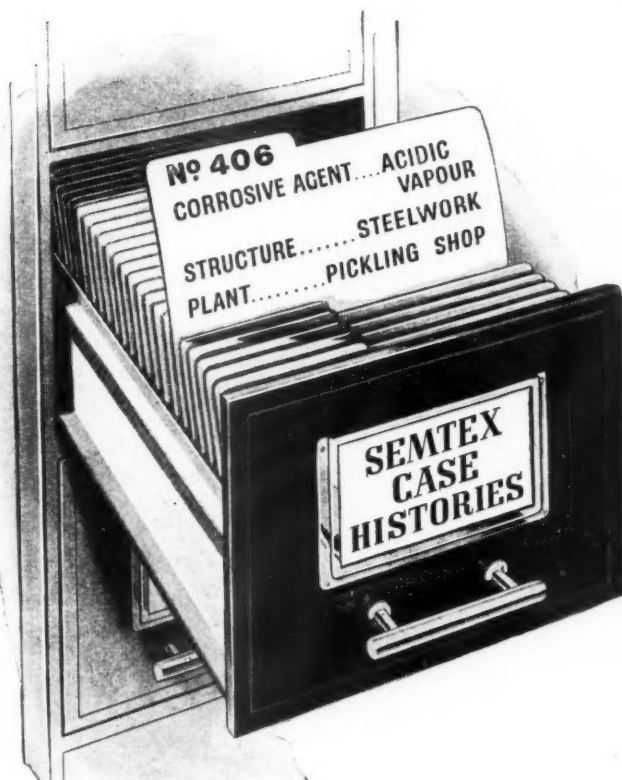
THE TREATMENT

All surfaces open to corrosive action were shrouded in a series of special protective coatings. Here's how the work was tackled. First, the skilled operatives handling the job flame-cleaned and wire-brushed the whole of the exposed areas. The cleaned steel was then treated with two coats of a rubber-based primer. On top of this were applied three layers of a flexible and completely corrosion-resistant composition.

The effectiveness of this multi-coat treatment and the scrupulous care with which it was applied have been proved by results. The steelwork has been entirely free from corrosion—despite the fact that the vapour rising from the pickling tanks is acidic and at a high temperature.

THE TECHNICAL SERVICE

The anti-corrosion treatment described was devised and carried out by the Industrial Division of Semtex Ltd., a Company in the Dunlop Group. The materials and methods used are typical of many which have been developed and perfected in the Division's own laboratories and works, and applied with success in almost every branch of Industry. This wide experience of corrosion counter-measures can be brought to bear upon the problem that is troubling you. Send your enquiry to:



THE INDUSTRIAL DIVISION OF

SEMTEX LTD

a Dunlop Company

NORTHERN AREA OFFICE:
11 FOLD STREET, BOLTON.
TEL: BOLTON 7601

SOUTHERN AREA OFFICE:
KINGSBURY ROAD, KINGSBURY, LONDON, N.W.9
TEL: COLINDALE 7033

FLOORING AND DECKING CONTRACTORS

SPECIALISTS IN INDUSTRIAL ANTI-CORROSION TREATMENTS

HEAD OFFICE: 185-187-189 FINCHLEY ROAD, LONDON, N.W.3

TEL: MAIDA VALE 6070

— 158/1.48

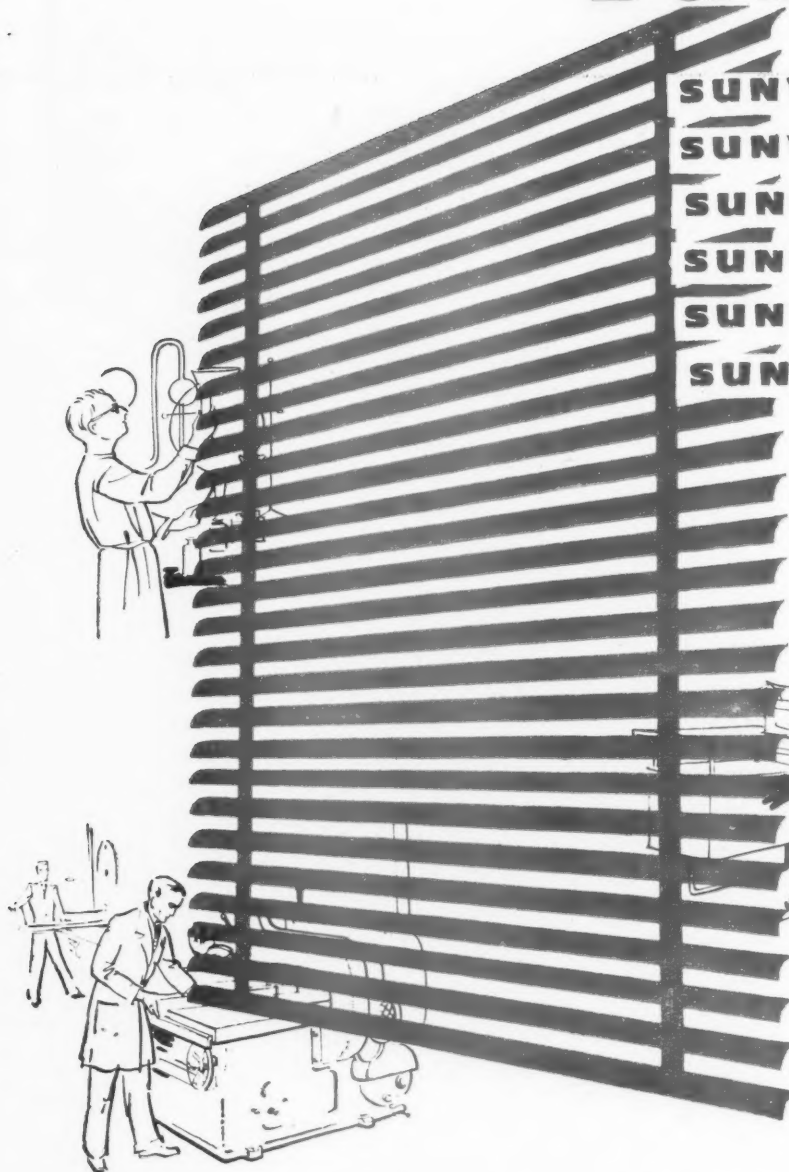
You can trust

VENETIAN BLINDS

by

SUNWAY

REGD



- SUNWAY** for insulating and fuel saving
- SUNWAY** for light conditioning
- SUNWAY** for ventilation
- SUNWAY** for comfort
- SUNWAY** for easy operation
- SUNWAY** for lifetime service

Fashioned in light aluminium slats, scientifically curved and stove enamelled in twelve attractive colours with tapes to match . . . Ideal for home, factory, office, school and hospital . . . for all types of windows and skylights.

Architects, Engineers, Efficiency Experts are invited to secure full information from:—

VENETIAN VOGUE LIMITED
408, MONTROSE AVENUE, SLOUGH, BUCKS.

Telephone: Slough 24595

ONE OF BELL'S ASBESTOS AND ENGINEERING GROUP OF COMPANIES

been handed over for occupation. This section of the flats is three storeys high and each flat has the following sanitary fittings: bath, lavatory basin, separate w.c., and kitchen sink. Waste and branch ventilating pipes are conventional. The traps were manufactured and the waste, soil, branch ventilating and anti-siphon pipes preformed by Econa Modern Products, Ltd., of Birmingham. Econa's method of preforming permits the easy removal of any fitting or pipe in the system and, on being approached by the students, the firm supplied and fitted traps made of glass which were otherwise exact replicas of the deep-seal tubular traps which they replaced. Hence it was possible for the students to observe not only the final loss of seal in the traps, but also the precise fluctuations in water level which took place under various conditions.

There was insufficient time available before the flats were due for occupation for more than 25 tests. For conclusive results each test should have been repeated 10 times; nevertheless the results are extremely interesting.

The first three tests were carried out mainly to ensure that the installation, which had not been in use for some time, was in good working order. The

first two tests showed that the long sanitary branch on the 1st floor was obstructed and the third test was made when the obstruction was removed. Tests 4 to 10 were made after the branch ventilation pipes on the 1st floor had been removed and the vent connections capped. Test No. 7 was a repeat of test No. 6, because it was discovered that an over-enthusiastic student on the 2nd floor unnecessarily helped the six pieces of newspaper down the w.c. with a very large floor mop.

For the remainder of the tests, observations were made of the traps on the ground floor as well as the 1st and 2nd floors and, here again, the branch vent pipes were made ineffective. Tests 24 and 25 (with the top of the soil pipe plugged) were expected to give large losses in seal, if the system proved to be air-tight; it did.

Apart from these last abnormal tests, with all ground and 1st floor vent pipes made ineffective, the only seal losses took place when buckets of water were discharged into the 1st and 2nd floor w.c.'s. at the peak of the flush, and in only one case (No. 18) did the amount of seal loss exceed that which is allowable in the opinion of BRS.*

The sanitary branch is 3½-in. dia.

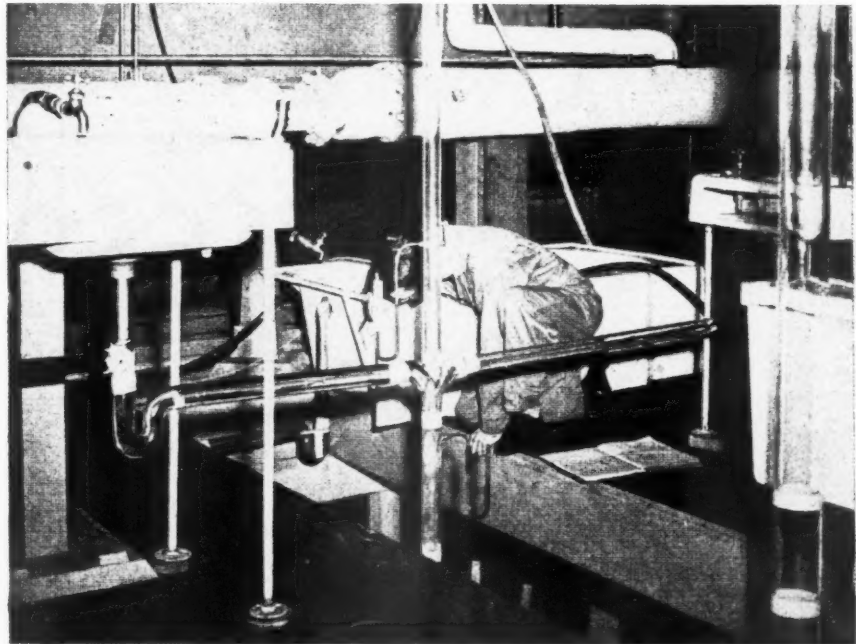
copper, 5 ft. long, placed at a fall of 5 deg.; the "P" trap under the basin has a fall of 1½ deg. through a distance of 2 ft. 6 in. to the soil and waste stack. Under the sink there is a 1½-in. "S" trap discharging into a 1½-in. waste pipe with a similar fall. From the bath, there is a 1½-in. "Econa" running trap discharging at 10 deg. into the soil stack. In all the tests, the overflow of the basin was plugged and the basin filled to overflow level. The sink contained 3 in. of water and, except where stated otherwise, the bath contained 5 in. of water.

It cannot be concluded from these tests that the omission of branch ventilation piping is possible; as far as the w.c.'s. on the ground and first floors are concerned it is felt that such an omission is undesirable, if only because test No. 10 might be representative. But it certainly appears from these tests that it would be worth while, before spending a great deal of money fitting orthodox branch ventilation to bath, basin and sink wastes, to investigate further the real advantages, if any, to be gained by doing so.

* One-Pipe Plumbing: Some Recent Experimental Hydraulics at BRS. A. F. E. Wise. Journal of the Institution of Sanitary Engineers, Jan., 1952.

AMERICAN EXPERIMENTS: THE NATIONAL PLUMBING CODE

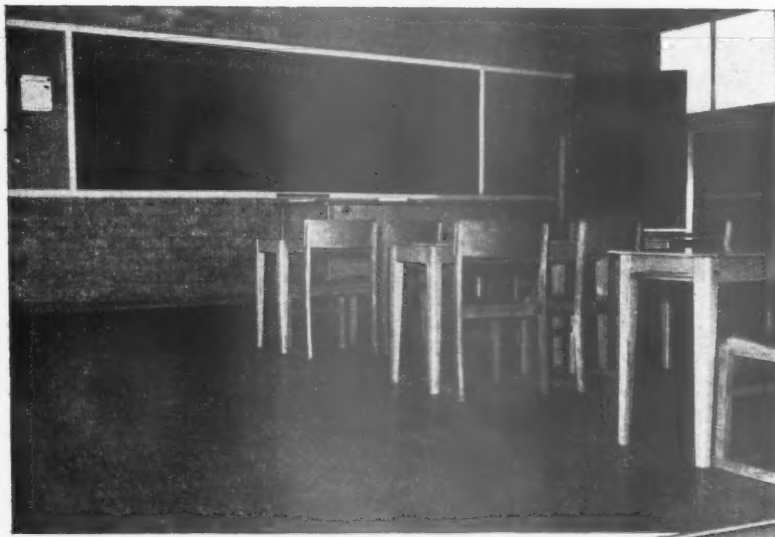
In the United States the question of a standard system of plumbing is attracting widespread attention. It is estimated that there are more than 1,000 cities and towns with different plumbing systems. Many of them are obsolete or restrict development. The American National Production Authority has undertaken some preliminary research. With the Housing and Home Finance Agency, it has issued the National Plumbing Code. It is based on test plumbing systems, such as those illustrated on the right, where transparent pipes are used. The Code, which has already been adopted by four States and 250 principal cities, proposes emergency



federal specifications for plumbing fixtures, new standards to reduce weight of soil pipes, etc., and a manual of design for use by architects, engineers and contractors. In December, 1951, a Government Advisory Committee on plumbing, after con-

sidering the Code, has made several recommendations. The Committee states that plated finishes are not necessary where other protective coats are available, the number of different sizes and designs should be reduced, outlet fixtures and traps should

County Architect beats Shortages



VERSATILE NEW MATERIAL SOLVES FLOORING PROBLEM

One of the most urgent tasks confronting public authorities in the post-war years has been the provision of new school accommodation. In the West Riding of Yorkshire, population rise has so far outstripped the regular building programme that an emergency scheme has been put into operation for enlarging the present schools. Sixty annexes of standard design (see illustration) are being built in the grounds of existing schools, mostly comprising two classrooms, cloakroom and sanitary accommodation, in order to meet the emergency.

Owing to the urgency of the work, only readily available materials could be specified. At the same time, the budget would not permit luxuries.

Choosing a floor

One problem of great importance has been flooring. A floor had to be found that was at once durable, readily available, and not too expensive.

The material chosen by Mr. Hubert Bennett, F.R.I.B.A., the County architect, was "Accotile," the asphalt tile flooring made by the Armstrong Cork Company—firstly, because it is readily obtainable, and secondly, because Accotile, with its damp-resisting qualities, can be laid direct on to screeded concrete without the necessity of a damp-course—hence the installation is much lower in cost than for most floors.

Accotile provides the flooring for the classrooms and vestibules of every building in the Hengist Scheme.

Qualities of Accotile

Accotile is a composition of inert, asbestos fibres and ground rock fillers, fadeless mineral pigment and asphalt or resin-binders. It pro-

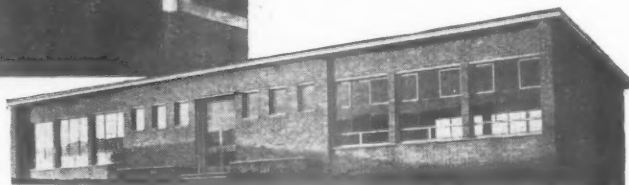
vides an extremely durable floor (floors laid in this country in 1938 and 1939 are still giving excellent service) that has a strong resistance to alkaline moisture. Accotile remains non-slip under all conditions, which makes it particularly suitable for schools and institutions.

There are almost unlimited possibilities of design for Accotile, and it can be laid to harmonize with existing decorations. Inconvenience is cut down to a minimum, since Accotile can be used as soon as it is laid.

Standard Accotile is cleaned by washing with

THE HENGIST SCHEME

for providing additional school accommodation in the West Riding has involved a rush building programme; all materials used had to be readily available. Accotile, specified by Mr. Hubert Bennett, F.R.I.B.A., West Riding County Architect, for flooring the sixty buildings in the scheme, was chosen primarily because it was readily available, and because for special reasons (see below) the cost of installation was remarkably low—but it has proved more successful than old-fashioned alternatives. Picture shows the Hengist annex at Mansel Crescent Infants' School, Parson's Cross, Sheffield.



water, and can be polished when desired. It is resistant to stains and dilute acids. Where conditions make it advisable, a special Grease Resisting Accotile is recommended.

Accotile is available in two sizes of tile (12" x 12" and 9" x 9"); in two thicknesses ($\frac{1}{8}$ " x $\frac{1}{4}$ ""); and in 19 different colours. In addition, Accotile Coved Skirting, supplied in 36" lengths, obviates the need for timber; and, as there are no corners for dust to collect in, it provides a hygienic, as well as decorative, finish to the room.

ACCOTILE*

"The low-cost floor with the luxury look"

* British Registered Trade Mark 66-5698. Armstrong Cork Company Ltd., Registered Users.

FOR FURTHER INFORMATION

about Accotile, architects and builders are invited to write or telephone to
ARMSTRONG CORK COMPANY LIMITED

London Office: Flooring Department, Bush House, Aldwych, W.C.2. Tel.: Chancery 6281.

Birmingham Office: Westminster Chambers, 93a Corporation Street. Tel.: Central 1271.

Glasgow Office: 5 Oswald Street, C.1. Tel.: Central 5703.

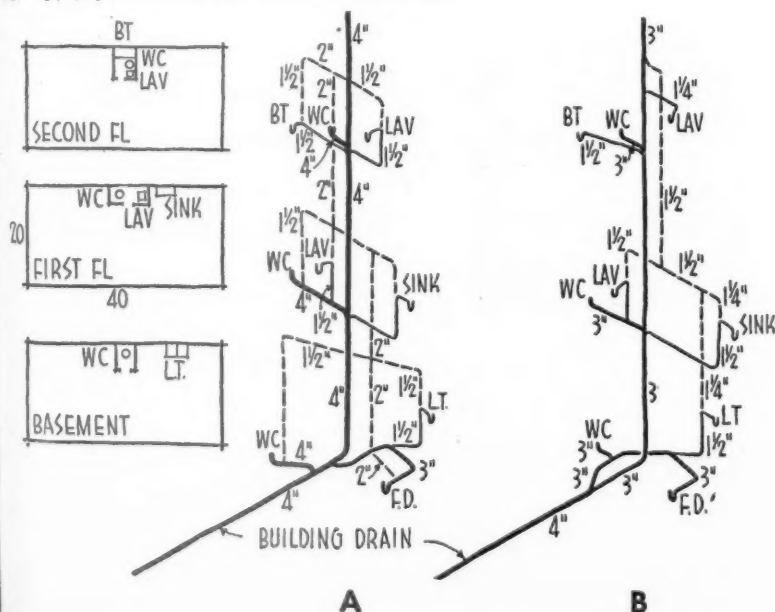
Dublin Office: 54 Middle Abbey Street. Tel.: Dublin 54901.

In addition to Armstrong's own service, forty-two approved contractors with branches all over the country handle Accotile.

USA NATIONAL PLUMBING CODE (continued)

be standardized to effect a lower discharge rate and so make smaller pipes possible. In addition, it is suggested that vitreous china or porcelain could replace several metal parts. The diagram, right, shows the test plumbing system illustrated on page 495. As in this country, there is a need for more detailed research so that the apparently large savings of scarce materials could be estimated accurately. It is stressed that more data are required if unvented waste pipes are to be used economically. It is claimed

that, under certain conditions, one drain which acts as a vent for another is entirely practicable in one- and two-storey drainage systems. For a one-family house, the Code requirements can be compared with the conventional American system. This is diagrammatically shown below. The dashed lines indicate vent piping. A, represents the conventional system; B, the system required by the Code. As a corollary, it should be noted that many American cities require a house trap and fresh air inlet which add another 127 lb. In addition, some require that the drain from the building to the public sewer be installed with extra-heavy cast iron pipe, which adds 520 lb. For further information, see the Architectural Record (USA), December, 1951, pp. 157-9, from which these illustrations are taken.



INFORMATION CENTRE

A digest of current information prepared by independent specialists; printed so that readers may cut out items for filing and paste them up in classified order.

2.120 planning: general
SHOPPING CENTRES

Shopping Centres. Design and Operation. Geoffrey Baker and Bruno Funaro. (Reinhold Progressive Architecture Library, New York. 1951. \$12.00.)

A very full account of modern American practice in the design of neighbourhood, community and regional shopping centres; 288 pages, including index, well illustrated by plans and photographs.

The first part of this book describes the need for shopping centres, their siting, the provision of car parks near them, the layout of the building and its approaches, and various design details. This is followed by 200 pages devoted to describing over 60 shopping centres, large and small.

During the last twenty years a new species of shopping centre has emerged in the USA. This is the single-store group, usually under single-ownership, but let to different tenants. The centre may contain within its boundaries: departmental stores, small shops, and the equivalent of the traditional street market. Self-service is the characteristic feature of these stores—it is said that 80 per cent. of American shoppers prefer this system.

The great difference between modern American practice and our own is made clear. Self-service began during the depression of the mid-thirties and led to lower prices. Today, however, the basis for it all is "real estate" development and the rising number of dollars being spent on the retail trades. The second influence is the automobile, for the typical customer has a car. As a pedestrian, the customer occupies 3 sq. ft. of ground space; his car requires 300 sq. ft. The area allocated for car-parking exceeds the floor area of the stores by as much as 200 per cent., and this figure is rising. The analysis of car-parking problems is excellent.

A stimulating book, but do not expect to find in it any "superior brands" of architecture.

3.27 planning: regional and national
PLANNING IN CANADA

Planning Projects in Canada. CPAC Newsletter (Community Planning Association of Canada, Jan., 1952.)

Some notes on important decisions on community building taken in Canada last year.

The St. Lawrence seaway and power scheme is to proceed. With this scheme the Canadians will have an opportunity for good detailed planning in the location and

Heat, Light—and Time

The water and gas supplies, the electricity and telephone wiring in modern buildings are, as a matter of course, planned on the drawing board, but the clocks are too often forgotten. Yet in all large buildings accurate and consistent time-indication is important and it pays to plan it with the other services. The time-indication for the South Bank exhibition was planned in this way using Gibson Master-and-Slave clocks. There were 133 Slave clocks and Time Recorders (some of them specially designed for the buildings in which they were used), driven by electrical impulses from a single Master clock. Batteries charged from the mains maintain the system during power-cuts.

Baume and Company are specialists in electrical time-indication and are always prepared to design special clocks.

Baume & Co. Ltd.

1 HATTON GARDEN, LONDON, E.C.1
and LA CHAUX-DE-FONDS

CLOCK AND WATCH MAKERS FOR MORE THAN A CENTURY

BAUME
WATCHES

Longines
WATCHES

HEUER
TIMERS

Gibson
CLOCKS



TUCKER'S 'Armourply'

**DOORS • COUNTERS
AND TABLE TOPS
CUBICLE UNITS
REFRIGERATORS**



**INSULATING PANELS
ESCALATOR PANELS
ROOF PANELS
VEHICLE BODIES**

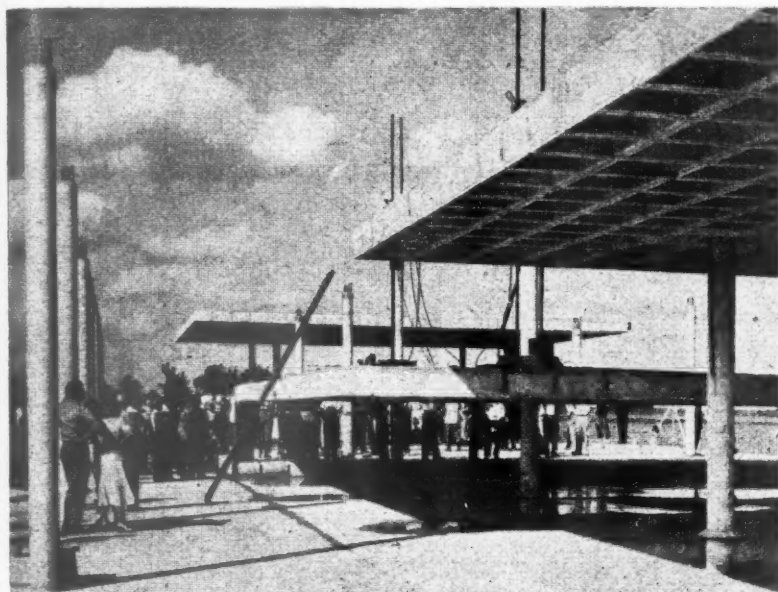
Combines light weight with strength in a wide range of decorative and utility surfaces

Manufactured by

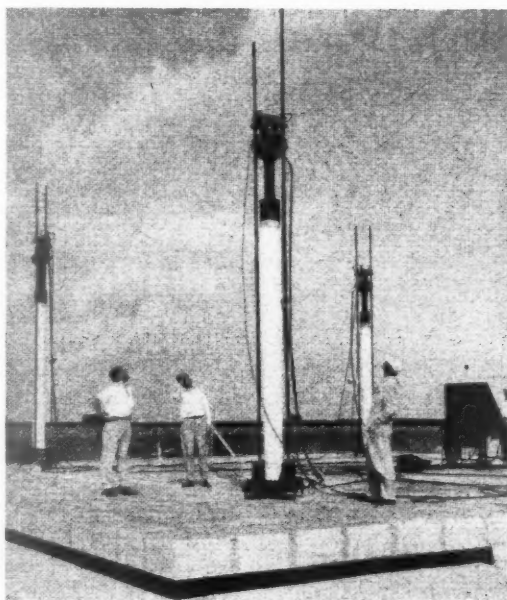
WILLIAM MALLINSON & SONS LTD

130-150 HACKNEY ROAD, LONDON, E.2 • Telephone: SHOREDITCH 7654 (10 lines) • Telegrams: ALMONER, LONDON

LIFTING SLABS OF HOLLOW BLOCKS



For a new factory in Florida, the Youtz-Slick slab lifting technique has been used for the first time with hollow concrete roof blocks. The Youtz-Slick technique was first described in this country in the JOURNAL for January 18, 1951. Later, a lecture by a visiting American architect, O'Neil Ford, was fully reported in the JOURNAL for July 12, 1951. In Florida the overall dimensions of the factory roof are 200 ft. by 100 ft. It has been lifted in sections, each of 50 ft. sq. and weighing 175,000 lb. The photograph above shows three sections of the roof: one fully raised to 14 ft. Each section is supported by four reinforced concrete columns. At the top of each column a 5-in. metal pipe collar provides a means for welding on the usual type connectors. In the photograph, below, three hydraulically operated jacks are shown in position. The columns are spaced at 30-ft. centres so that the roof slabs cantilever 10 ft. beyond the columns on all four sides. The slabs were formed by specially designed hollow concrete blocks, 2 ft. square by 13 in. deep, with a weight of 130 lb. Each block has a 2-in. flange on each of its four sides. The blocks were laid on the concrete floor, with the hollow sides down and the flanges touching. The reinforced steel, amounting to 1.82 lb./sq. ft. and the in situ concrete were added. In addition, a 4 ft. square solid slab of concrete was formed round each column. Embedded in this slab were



building of new villages, factories, waterside facilities, dams and power stations.

On the other side of Canada, in British Columbia, the Aluminium Company of Canada is creating a new town of Kitimat. "Alcan" is breaking with the tradition of company towns and hopes to form a balanced town of about 50,000 people. The company is, however, assuming the first costs of seeing Kitimat properly laid out and developed. "Alcan" has engaged Clarence Stein to co-ordinate the work and Albert Mayer as site planning consultant. A development to be watched.

4.69 planning: urban and rural

STEPNEY RECONSTRUCTION

Industry and Planning in Stepney. D. L. Munby (Geoffrey Cumberlege, Oxford University Press, 1951, 30s.).

This report to the Stepney Reconstruction Group of Toynbee Hall cannot fail to be of the greatest value to the LCC in planning the Stepney-Poplar reconstruction area. The area covers practically the whole of the Borough of Stepney—that crowded, drab, but vital cosmopolitan community which lies directly to the east of the City.

The report, largely finished in 1946, was published last autumn in book form. Its 450 pages of text appear, at a first glance, to be formidable, but this is a false impression for, of its kind, the book is first class and many of the pages make excellent reading. Here and there, however, some repetition is apparent. The text is well supported with tables, maps, and a comprehensive index.

Compared with some of the provincial cities, London has been poorly supported in its planning, by detailed social and economic surveys into the life of its constituent boroughs. How important these detailed surveys are is brought out by this report. One of the chief lessons to be learned from it are the pitfalls of generalizing about decentralization once a programme starts to be applied—its successful application calls for the most detailed knowledge about potential outgoing industries and population. Particularly good is that part of the report which deals with the borough's industries—the famous clothing trade, the river-side industries and the many others. The report demonstrates the danger of planning for the needs of the borough's remaining population without a detailed knowledge of its composition and the danger of applying national standards unmodified to an unusual community.

16.85 materials: miscellaneous

ALUMINIUM

Aluminium in Building. (Northern Aluminium Co. Ltd. 1952.)

110 pp. Picture book plus diagrams and useful notes on all uses of aluminium in building.

This book is very well illustrated by photographs and diagrams. Although the author does not go into great technical detail, he does give some useful notes on the properties of aluminium and many of the diagrams of its application are useful for reference purposes. In an accompanying letter, the publishers make two points clear: firstly, that owing to the present shortage of aluminium it is not generally available for building work; secondly, that the cost of the book is such that it is available as a free issue only to heads of firms, government departments, teachers in architectural subjects and libraries.

NOW what do we do?

The answer's simple enough, no doubt, for there are few materials easier to work than WARERITE Plastics —but supposing it's a job you haven't met before! If you don't hit on the best method first time, do you try and ferret it out for yourself? Or do you save yourself trouble and ring up our technical staff right away? You are always welcome to a friendly word of advice, or to any WARERITE leaflets. These now include a new booklet on Fabricating Instructions.

WARERITE
REGD. TRADE MARK

LAMINATED PLASTICS

Top of their class—with no marks



MADE BY WARERITE LIMITED (UNIT OF BAKELITE LTD) · WARE · HERTS · TELEPHONE WARE 502
Manufacturers of Decorative Laminates for over 20 years

W112

NEBULOSITY*

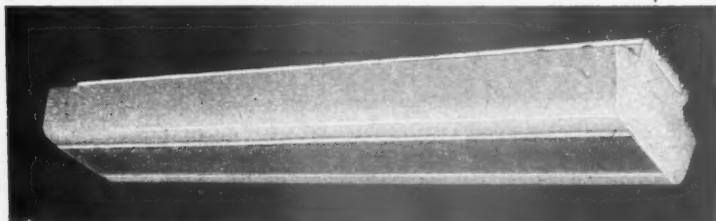
* The state of being cloudy

in a Public Library

**causes LOW MORALE IN THE STAFF,
EYE-STRAIN IN THE READING-ROOM,
DISCONTENT AMONG RATEPAYERS**

IN MANY PUBLIC libraries and other municipal buildings, there is a tendency to retain old-fashioned lighting that gives a harmful mixture of glare and shadow, resulting in inefficiency. The modern outlook demands fluorescent lighting by Philips, which brings to every desk and book-shelf the ideal light for the purpose. No harsh glare, no deep shadows, but clear, restful vision. Staff and public alike are grateful.

The smart "Arundel" fitting which contains two 40 W. 4 ft. Philips fluorescent lamps. Other suitable fittings for public buildings are "Amesbury" and "Westbury".



Consult

**PHILIPS
ELECTRICAL
LIMITED**

on all lighting problems

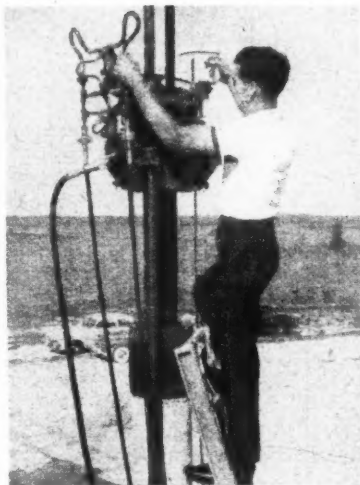
LIGHT GROUP, CENTURY HOUSE, SHAFTESBURY AVENUE, LONDON, W.C.2.
MAKERS OF: RADIO & TELEVISION RECEIVERS · "PHILISHAVE" ELECTRIC DRY SHAVERS, ETC.



(LD903A)

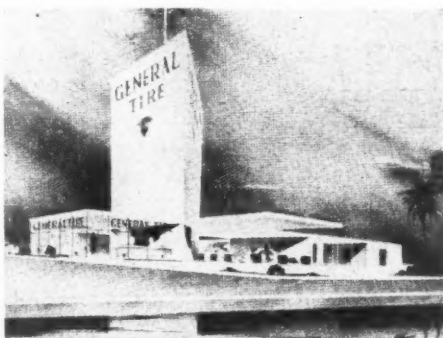
SLAB LIFTING (continued)

$1\frac{1}{2}$ in. dia. screw anchors for lifting. As the sides of the blocks taper inwards, the blocks wedged together as the concrete set. The lifting was performed by individual hydraulic jacks, right, controlled from a central panel on the slab. The rate of lift was $2\frac{1}{2}$ ft. per hour. By using hollow blocks the weight of steel was considerably reduced from the usual 4 lb./sq. ft. necessary for solid slabs. For further details see the Engineering News Record (USA), February 21, 1952, pp. 30 to 31.



COFFERED CONCRETE CANOPIES

The photograph below, right, shows the new tyre service station at Miami Beach Florida, which has been constructed with 5,000 sq. ft. of canopy area without columns. The building is dominated by a triangular-prism tower from which the three canopies are cantilevered to spans of 30 ft. to 50 ft. The undersides of the canopies are coffered to reduce the deadload. The cofferers were constructed by pouring concrete around 3,700 metal cans, below. The canopies required 115 cub. yd. of concrete; the entire structure 700 cub. yd. and 38 tons of reinforcing steel. For further details see the Engineering News Record (USA), February 28, 1952, p. 36.

22.52 sound: insulation and acoustics
ACOUSTIC TREATMENT

Three Selected Detail Sheets. (Progressive Architecture [USA]. Feb., 1952.)

Drawings and photographs of acoustically treated (a) open fronted telephone booths; (b) small listening rooms; and (c) small music practice rooms, all in Fine Arts Building, University of Kentucky.

23.157 heating and ventilation
DOMESTIC APPLIANCES

Recommended Domestic Solid Fuel Appliances. List No. 4. (Coal Utilisation Joint Council. Dec., 1951. 6d.)

Further revision to the well-known list of approved appliances from which house heating and hot-water appliances using solid fuel are now bound to be chosen.

While it is an excellent thing that only appliances on an approved list may be installed in new houses, the list in itself does no more than ensure that a range of appliances, reasonably efficient for their type are used. It does not give any figures to show what efficiency of coal utilization can be expected from the various appliances or even from the various classes of appliance. There are, of course, a number of reasons why it would be very difficult to supply such figures, particularly in a document of this kind. Hence, it remains for architects to endeavour to find out by other means what degree of efficiency any particular appliance may have.

The list does not include any figures for B.Th.U. output and architects are "advised to consult a member of the Councils' Panel of Approved Appliance Distributors for advice on the appliances most suited to their needs." Valuable though such advice may be in some cases it would be useful if architects could be given some basic information—if it exists.

ENQUIRY FORM

I am interested in the following advertisements appearing in this issue of "The Architects' Journal." (BLOCK LETTERS, and list in alphabetical order of manufacturers names please).

.....

.....

.....

Please ask manufacturers to send further particulars to:—

NAME

PROFESSION or TRADE

ADDRESS

.....

.....

AJ.17.4.52

Buildings Illustrated

Stands at the 1952 Hotel, Restaurant and Catering Exhibition at Olympia. (Pages 484-485.) Stand for Votrix Vermouth (Vine Products Ltd.) Designer: Ronald Dickens, M.B.E., M.S.I.A.; Associate, Richard B. Hornby; General contractor: G. & W. Waller Ltd. Sub-contractors: floor tiles, Semtex Ltd.; plants, vines and grapes, The West End Flower House; furniture, Ernest Race Ltd.; sound reproduction, Sound Services Ltd.; puppets, Miss D. Warner; coloured advertisement reproductions, Carlton Artists Ltd.; glass advertisement panel, Speedway Signs Service. *Stand for Newton Chambers & Co. Ltd.* Designer: Christian Barman, R.D.I., F.R.I.B.A.; General contractor: Beck & Pollitzer Ltd. Chairs designed by Peter Hvidt and O. Molgaard Nielsen; supplied by Finmar Ltd. Wallpaper, Arthur Sanderson & Sons Ltd.; light fittings, Troughton & Young Ltd.; curtains, Heal & Sons Ltd.; photographic enlargements, Autotype Co. Ltd. *Stand for Hussman British Refrigeration Ltd.* Designer: Ian Baker, A.R.I.B.A.; for Grant Advertising Ltd. General contractor: Pictorial Display Ltd.

Car Assembly Building for Austin Motor Co. Ltd., at Longbridge, Birmingham. (Pages 489-492.) Architect: C. Howard Crane, A.I.A. Quantity surveyor: L. C. Wakeman & Partners. Drainage consultant: D. Longdon. General contractor: W. J. Whittall & Sons. Sub-contractors for the structure: asphalt, Highway Construction Ltd.; reinforced concrete, Concrete Ltd.; bricks, Proctor & Laverder Ltd.; stone, South Western Stone Co. Ltd.; structural steel, iron staircases, Redpath Brown & Co. Ltd.; fireproof construction, folding gates, Potter Rax Ltd.; special roof-

ings, Robertson Building Service; partitions, Roneo Ltd.; patent glazing, casements, metalwork, Williams & Williams Ltd.; patent flooring, Empire Stone Co. Ltd. Sub-contractors for the equipment: central heating, Brightside Foundry Eng. Co. Ltd.; electric wiring, Lee Beasley & Co. Ltd.; stairtreads, Ferodo Ltd.; fireproof doors, Sheldon Ltd. Sub-contractors for decoration and specialities: plaster, joinery, water supply, General Construction Co. Ltd.; metalwork, Birmingham Guild Ltd.; terrazzo, Zannelli (London) Ltd.; shop fitting work, Frederick Sage & Co. Ltd.; locker cloakroom fittings, Fisher & Ludlow Ltd.

Announcements

The technical advisory service of the Lead Industries Development Council is a central source of information on the use of lead sheet and pipe. Usually inquiries are dealt with by correspondence or telephone, but from time to time problems do arise that are better dealt with by discussion or demonstration on site than by lengthy correspondence. For example such problems as methods of working and fixing lead sheet and pipe for unusual purposes in new work, and the use of leadburning instead of soldered joints for lead pipe or instead of bossing to sheet leadwork. When such practical guidance is desired arrangements can be made, on request, for a visit by a technical officer. Inquiries may be sent to the Lead Industries Development Council, Eagle House, Jermyn Street, London, S.W.1.

The Merchant Adventurers Ltd. announce that by the acquisition of a new factory and works in Portland Road, W.11, a much wider range of MA lighting fittings will shortly be made available with, it is hoped, improved deliveries.

At the recent meeting of the council of the English Joinery Manufacturers' Association, with the president, Mr. M. van Westerborg, in the Chair, Mr. W. E. Adams, the senior vice-president, was re-appointed as the representative of the association on the council of the British Wood Preserving Association. Among other matters discussed were the steps which the association has taken with regard to the shortage of metal so far as hinges and hardware for joinery are concerned and also the effect on costs of the increased price of petrol. It was reported that EJMA Standard Kitchen Units and EJMA Standard Wood Casement Windows, together with a display panel showing photographs and giving full information with the Association's Certification Trade Mark were being exhibited by the TDA in the House Section of the Glasgow Building Exhibition.

The following firms were elected members:—Bonds (Mackworth) Ltd., Mackworth, Derby; W. H. Gaze & Sons Ltd., 19-23, High Street, Kingston-on-Thames, and Page & Taylor Ltd., Electric Saw Mills, Preston Dock, Preston, Lancs.

The next meeting was arranged for the June 10, 1952.

The address of M & B Plastics Ltd. is now 45-47, Wigmore Street, London, W.1. (Tel.: Welbeck 0425.)

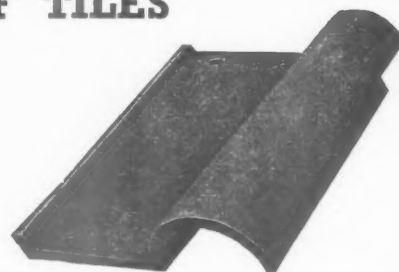
Enquiry Forms

Very often manufacturers who advertise in the JOURNAL's pages produce several products. Readers should therefore note that when completing enquiry forms they should indicate what particular product they are interested in.

BAMBINO *handmade* INTERLOCKING ROOF TILES

We make many types of roof tiles—all by hand. One very popular pattern is the "Bambino." For exposed positions this is excellent. Owing to the very efficient interlock each tile is held in a firm grip by its neighbour rendering it practically impossible for any tile to be dislodged by strong winds. Millions of Bambino Handmade Roof Tiles have been used on buildings of all kinds.

We can supply these tiles with plain, sanded, or colour glaze finish. Ask us to send list illustrating our various types.



BAMBINO INTERLOCKING CLAY ROOF TILE
SIZE 13½ in. by 10½ in.

COLTHURST-SYMONS & Co. Ltd

Patent Tile Works · Bridgwater · Somerset

London Office: Mr. Dawson Goodey, 6 Queen Anne's Gate, Westminster, S.W.1

Phone: WHitehall 7607



**THE
BURNING
QUESTION!**

GUTTED MAY 1951

RELINED WITH ASBESTOLUX NOV. 1951



**SOLVED BY
ASBESTOLUX**
Incombustible Insulation Board

*Photographs by courtesy of the
Ministry of Civil Aviation.
Thermal Insulation Lining by
W. H. Heywood & Co., Ltd.*

NO. 3 HANGAR AT LONDON AIRPORT was gutted by fire last year, and the top photograph was taken immediately after the fire was extinguished. As the lower illustration shows, it has now been re-lined with the incombustible insulation board, ASBESTOLUX, each 8' x 2' panel being fitted to Aluminium T's. The burning question has been answered.

ASBESTOLUX IS . . .

- ★ Absolutely fireproof.
- ★ Light and strong.
- ★ Of high Thermal Insulation value.

- ★ Easily nailed and sawn.
- ★ Proof against warping, twisting or waving.
- ★ Unaffected by rot and termite.
- ★ Unaffected by steam, water or temperature change.

Manufactured by

THE CAPE ASBESTOS CO. LTD.

Dept. A.2.

114-116 PARK STREET · LONDON · W.1 · TELEPHONE: GROsvenor 6022

You wouldn't use plywood for strong-room walls...

—but much valuable material that can't go in the strong-room is left in rooms fitted only with the flimsiest locks. Meet the challenge of the modern burglar, and his advanced methods and equipment, by specifying Ingersoll 'Steel-Clad' 10 (yes, TEN) lever locks, which offer maximum security for all types of premises. They are applicable to any type of door, and their clean design will please the most fastidious.

UNIQUE MASTER-KEY SYSTEM

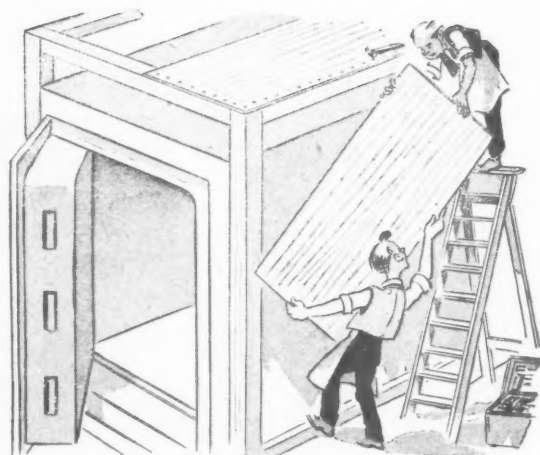
Your clients can Ingersoll-lock anything from a two-roomed flat to a group of factories, each with a different and exclusive combination—one master-key to open all. Employees or family can have sub-master keys to open only those buildings or rooms they are authorised to enter.



The Ingersoll Automatic Rim Deadlock

The Ingersoll Braced Mortise Clawbolt Deadlock

The Ingersoll All-Steel Padlock



AT YOUR SERVICE — THE INGERSOLL SECURITY ADVISORY BUREAU. The services of technical experts are offered to you and your clients. Write for details or, better still, ring BYRON 3456 and ask for a representative to call.

- Steel-Clad for Maximum Security
- Positive Deadlocking
- Concealed Fixing
- Exclusive Combination
- No unauthorised Duplicating of Keys

INGERSOLL SECURITY
ADVISORY BUREAU
**INGERSOLL
LOCKS LIMITED**

18 INGERSOLL CORNER, RUISLIP,
MIDDLESEX

CORK, THE FLOOR THAT'S HALF AIR

is not only QUIET, WARM, LUXURIOUS
but TOUGH, LONG-LASTING, ECONOMICAL

CORK, most luxurious of floors, with the air-cellular structure that kills noise, has long been the architect's first choice where silence is essential, or comfort more important than cost.

But this resilient material, more than half air, is also exceedingly tough. It stands years of heavy foot traffic in busy shops, offices, hospitals, schools, restaurants, even in buses, with scarcely perceptible wear. In domestic use, it may well last a lifetime.

So cork is truly economical—far more so, when you count the years, than 'cheaper' floors that can never give the same satisfaction. Even first cost is competitive, normally lower than for wood blocks. And with this warm, quiet surface there is far less need for carpeting.

PURE CORK IN TILE FORM

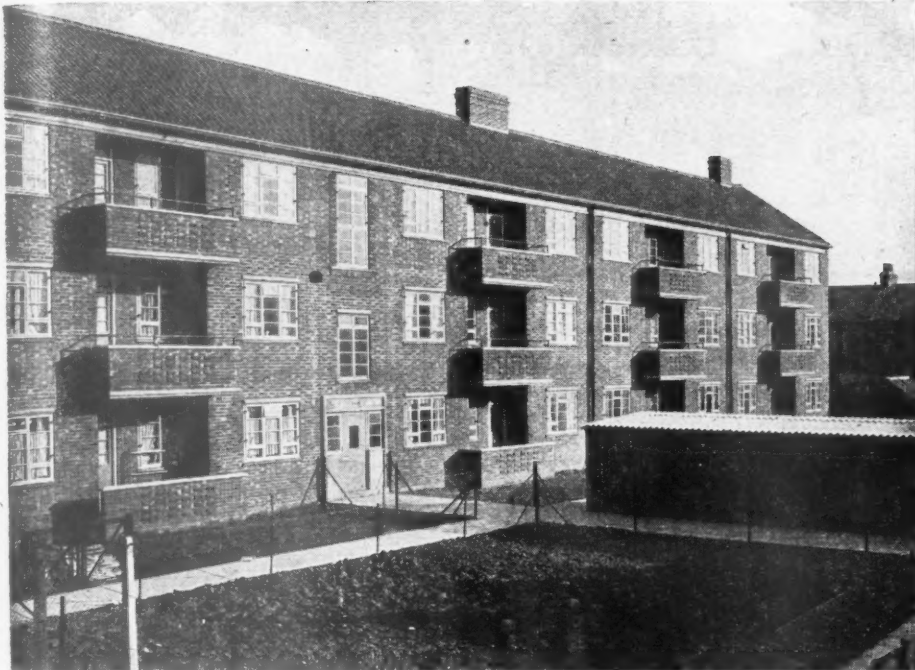
Armstrong's Cork Tiles, famous since 1896, are made of nothing but pure, resilient Spanish cork, bonded under heat by its own resins—no dust or gritty granules, no adulterant. A special feature of Armstrong's Cork Tiles is that they are supplied not only straight-edged but also tongued and grooved, which obviates sanding after laying and prevents lipping and curling. You are invited to write for further particulars.

ARMSTRONG'S CORK TILE FLOORING

ARMSTRONG CORK COMPANY LTD., FLOORING DEPARTMENT,
BUSH HOUSE, ALDWYCH, LONDON W.C.2
Telephone: Chancery 6281

SCOTTISH BRANCH:
5 OSWALD STREET, GLASGOW C.1
Telephone: Central 5703





FINLOCK

Regd. Trade Mark

SAVE £30 PER PAIR OF HOUSES

Omissions

| | |
|--------------------------------------|-----------------------------|
| 9 yds. 11 in. Brickwork | 160 ft. super of Roofing |
| 160 ft. of 2 in. by 3 in. | 80 ft. of Tilt Filler |
| 80 ft. of Fascia | 80 ft. of Soffit |
| 80 ft. of C.I. Gutter | Beam Filling |
| 2 Outlets | 4 Stopped Ends |
| 2 Offsets | 2 Lead Slates |
| Painting Gutters—Fascia—Soffit | |
| Reduction in Down Pipes and Drainage | |

Additions

| | | |
|----------------------------|----------|-------|
| FINLOCK | PRE-CAST | EAVES |
| COMPLETE WITH ALL FITTINGS | | |
| FIXED IN ONE DAY | | |

Over 200 Country, City and Local Authorities are now using Finlock Gutters for their 1952 Programmes for every conceivable type of building, Police Housing, Schools, Libraries, Municipal Housing.

Acclaimed by Architects and the Trade as the finest advance in building construction.

Our statements with regard to saving in cost are being confirmed every day by Quantity Surveyors. The actual amount varies and is dependent on the existing specification. Finlock greatly improves the appearance of a building and being of fine waterproof concrete, reduces maintenance costs appreciably. Roof maintenance is greatly facilitated by the use of Finlock Gutters and painting is reduced to doors and windows.

Borough of Camberwell Housing.

Architects: Messrs. John Grey & Partners, F.R.I.B.A., A.A.Dip.

Finlock Gutters eliminate painting and maintenance to the eaves.

FINLOCK GUTTERS LTD., 20, ST. JOHN'S ROAD, TUNBRIDGE WELLS, KENT

WORKS AT: LEEDS, YORKSHIRE.
EDINBURGH, SCOTLAND.
CWMBRAN, SOUTH WALES.

BARNSTAPLE, DEVONSHIRE.
SOUTHAM, WARWICKSHIRE.
TUNBRIDGE WELLS, KENT.

Telephone: Tunbridge Wells 20396/7/8

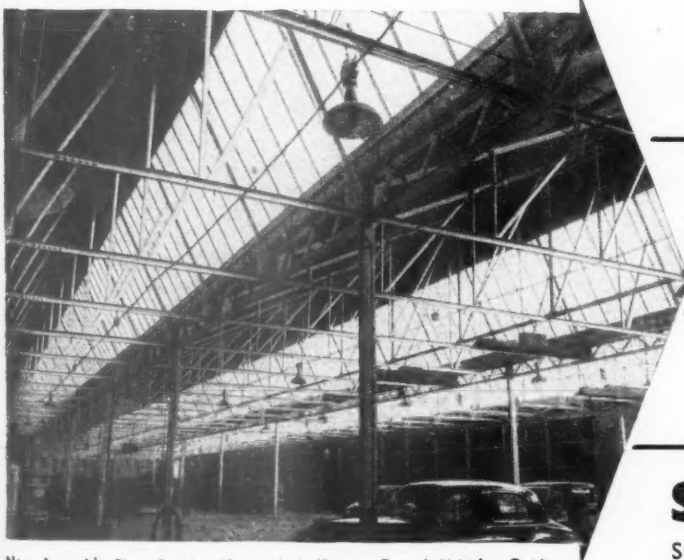
Building in Ireland

structural steelwork

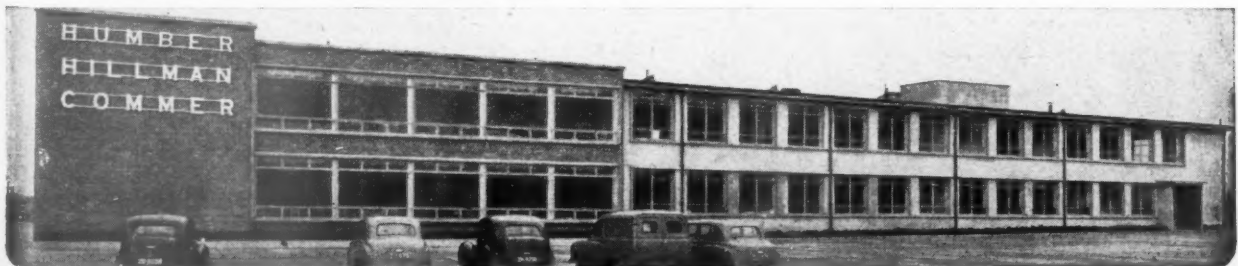
steel windows

Smith & Pearson

Smith & Pearson Ltd., Newcomen Works, Dublin



New Assembly Plant Buckley Motors Ltd. (Rootes Group) Vehicles Dublin



BOOK-OF-THE-MONTH FOR ARCHITECTS AND SURVEYORS

**106-page catalogue of
Surveying and Drawing Apparatus**

From tapes to theodolites . . . from slide rules to staves . . . from lenses to levels . . . we carry comprehensive stocks of new and second-hand surveying and drawing apparatus. Send today for 106-page illustrated catalogue and supplementary second-hand list.



244 High Holborn
London, W.C.1
Tel. HOLborn 1427

MAIL THIS COUPON NOW!

To: C. BAKER (of Holborn) LTD.,
244 High Holborn, London, W.C.1

Please send, without obligation, catalogue of Surveying and Drawing Apparatus.

NAME _____

ADDRESS _____

NSE Steel Office and Works EQUIPMENT

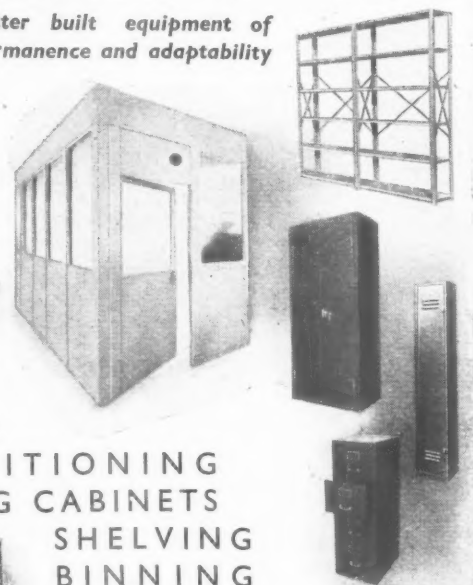
**Rigid, better built equipment of
greater permanence and adaptability**

Designed
for easy
erection by
unskilled
labour

Made to suit
any speci-
fication.

Enquiries
invited

Visitors
welcomed
at our
STAND F17
B.I.F.
OLYMPIA



**PARTITIONING
FILING CABINETS
SHELVING
BINNING
CUPBOARDS LOCKERS**

NORWOOD STEEL EQUIPMENT

(London) Ltd.

44 NORWOOD HIGH ST., LONDON, S.E.27

Telephone: GIPsy Hill 1104/5

Industrial skyline...



WITNESS TO THE EFFICIENCY OF PATENT GLAZING

The Willenhall Motor Radiator Factory in Staffordshire takes advantage of roof glazing to obtain a full share of natural daylight thus improving general working efficiency and output. This large expanse of glass was installed by the Standard Patent Glazing Company, specialists in all forms of roof glazing.

THE STANDARD PATENT GLAZING CO. LTD

WORKS: DEWSBURY Phone: 1213-4

LONDON OFFICE Phone: HOUnslow 3079

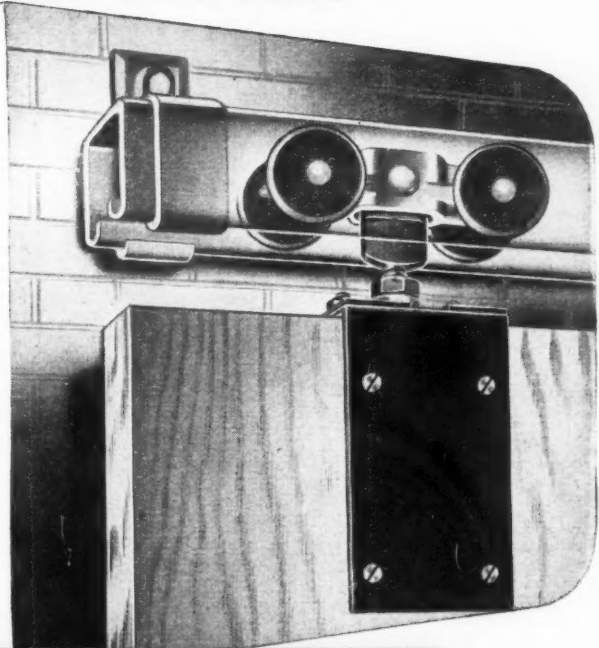
Branches at BIRMINGHAM and BRISTOL

THE COBURN SYSTEM

SLIDING DOOR GEAR

In order to avoid you wasting your time we place at your disposal a staff trained to detail a suitable specification for any particular application.

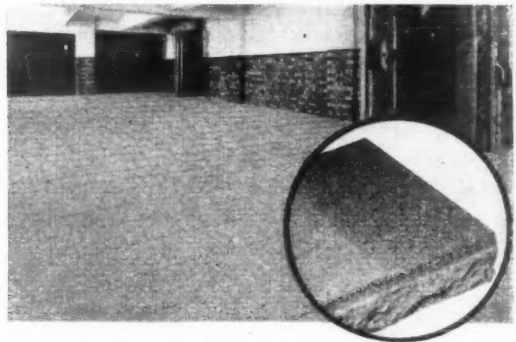
Write for catalogue, prices and advice:—



The **BRITISH TROLLEY TRACK CO** Ltd.
COBURN WORKS • COPPERFIELD STREET
LONDON • S.E.1

DO ALL YOUR INVESTMENTS PAY DIVIDENDS?

*Your factory floor
for instance*



CAN OFFER YOU A HARDWEARING,
TROUBLE FREE FLOOR TO SUIT
EVERY CONDITION

*our wealth of practical flooring
experience is at your disposal*



HEAD OFF.: EAGLE WORKS,
WEDNESBURY,
[STAFFS.]

TELEPHONE: WED 0284
5 LINES

LONDON OFF.: ARTILLERY HOUSE
ARTILLERY ROW,
LONDON, S.W.1

TELEPHONE: ABBEY 3816
5 LINES

RECORD INSTALLATION of new generating plant, but **ELECTRICITY** *is still in short supply*

ON MARCH 31ST, 1951, British Electricity were serving over 13 million consumers of electricity — nearly 450,000 more than a year before and over 3 million more than in 1939. In the year to March 31st, 1951, sales of electricity exceeded 46,500 million units. Industrial consumption was 11·8% more than in the previous year, domestic 12% more and commercial 16·7% more. To meet the ever-increasing load, British Electricity installed more new generating plant last year than ever before. But it is not yet possible to bring supply level with demand *at peak hours*. These are, Mondays to Fridays, 8 to 12 noon and 4 to 5.30 p.m., and during hours announced by the B.B.C.

Still more power is needed for rearmament and for home and export production. It can be supplied, despite the plant shortage, by existing power stations — *if* . . . The “if” is if too many users do not switch on at the same time. When they do and “Peak” demands become too great, power cuts are unavoidable.

To help to stop power cuts, domestic users, shops, hotels and offices are urged to keep their electric fires switched off and to cut down their demand in every possible way during Peak Hours. This will mean some sacrifice but it will help keep the factories going.

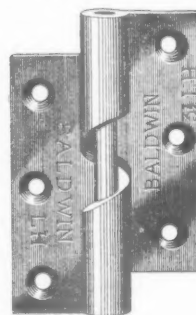
Industries, too, in addition to their load-spreading arrangements, must use electricity with the utmost efficiency and economy. Above all there must be

NO WASTE

BRITISH ELECTRICITY



FOR SMOOTH, SILENT RISERS . . .



FIX

**BALDWIN'S
RISING
HINGES**

Sole Manufacturers:

BALDWIN, SON & CO. LTD., STOURPORT-ON-SEVERN

PHENCO PLASTIC FLOOR COVERING

PHENCO is recommended by Architects as exceptionally strong and hard wearing, with high resistance to oil, grease and chemicals. NON-inflammable. Non-slip and dustless and easily kept clean by normal methods.

PHENCO is tested to British Standards Specification for wear, indentation, pliability, water absorption and non-inflammability. B.S.S. 476/1932, B.S.S. 386/1936, B.S.S. 810/1938.

PHENCO FLOORING is a durable and flexible material with pleasing colour tones. It is supplied in 8 or 12 yard rolls, 36 in. wide by 3/32 in. or 1/8 in. thick; also in tiles 12 in. by 12 in. and 9 in. by 9 in. and 1/8 in. thick.

SAMPLES AND FULL QUOTATIONS ON REQUEST TO

PHOENIX RUBBER CO. LTD.

91, Bishopsgate, London, E.C.2. Tel.: London Wall 1622

Works at: 2K Buckingham Ave., Trading Estate, Slough, Bucks

Tel.: Slough 22307/8/9

Agents for Birmingham area
A. D. FOULKES LTD.

Agents for Sheffield area
JOHN HADFIELD & SONS LTD.

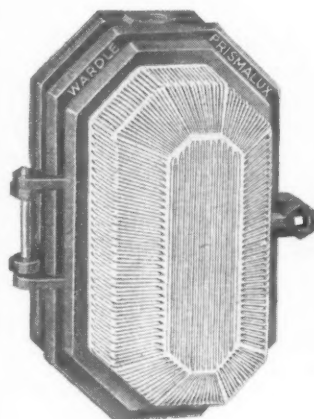
recently published

The Modern **FACTORY** by Edward D. Mills FRIBA

A BOOK for architects and industrialists. Its purpose is to help solve the many present-day problems of factory layout, planning, design and construction. It contains chapters dealing with siting and layout; the factory estate; the design and structural techniques employed for modern factory buildings; technical considerations; storage and warehouse accommodation; administration buildings; industrial laboratories; industrial welfare buildings. There are numerous line-diagrams, tables and working check-lists in the text, and the book illustrates, with photographs and drawings, a selection of the more interesting factories recently built in this country and abroad, factories which are not only efficient production units but also outstanding examples of contemporary architecture. It ends with a comprehensive bibliography. Bound in full cloth boards. Size 9½ ins. by 7½ ins. 192 pages including frontispiece and 42 pages of plates; many line drawings, a bibliography and an index. Price 30s. net. Postage 8d.

THE ARCHITECTURAL PRESS 9 Queen Anne's, Gate, S.W.1

For Every Situation...



PRIMALUX

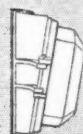
Directional Lighting Units

Enamelled or galvanised finishes. Choice of seven inter points. Obtainable from all leading stockists or direct from the works where "Maxheat" oval tubular electric heaters, "Workslite" reflectors and Wardle floodlights are made.

★ **PRIMALUX COMMANDS THE WORLD'S LARGEST SALE**

The **Wardle**

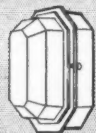
Please send for details to:
Engineering Co., Ltd, Old Trafford, Manchester 16



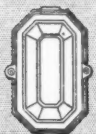
TILTED for subways, cable and conduit runs, arches.



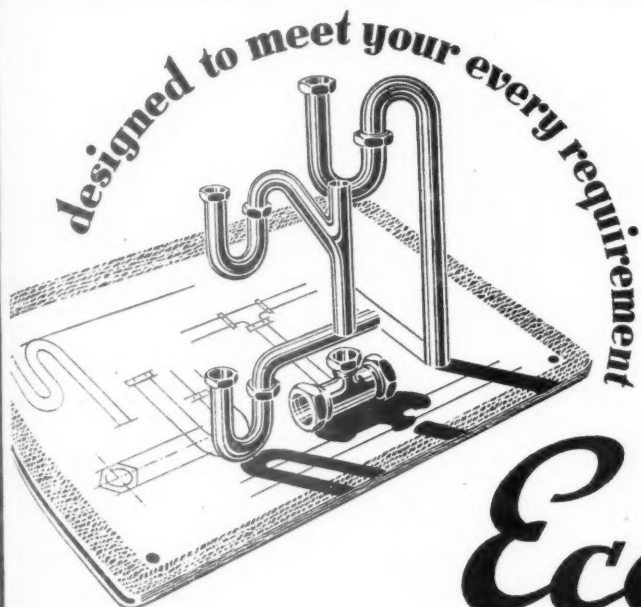
GUARDED for passages, stairways, porches, doorways.



RECESSED for low ceilings and concave lined spaces.



DETACHABLE cover for corners of passages, cellars, arches.



Not only are Econa traps and fittings available in a comprehensive range of standard designs, but they are also supplied to meet those many special requirements which arise from time to time even at the drawing-board stage. Starting from straight smooth-bore copper tube we can bend it into the most unusual shapes and introduce branches at will. Econa fittings help the architect to work without allowing his drainage problems to stifle his inspirations.

Econa traps and fittings are all made from smooth copper tubes.

Econa

CAN HELP YOU....

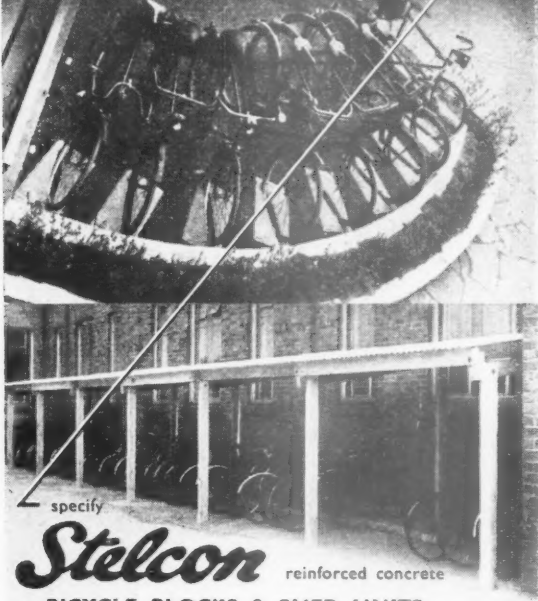


Econa traps now have outlets with the correct gradient to prevent self-syphonage in single and one pipe plumbing.

ECONA MODERN PRODUCTS LIMITED
AQUA WORKS, WARWICK RD., TYSELEY, BIRMINGHAM 11

Phone AC0cks Green, 2211

for cycle parking that is
simple, orderly and
... maintenance free—



Stelcon

reinforced concrete

BICYCLE BLOCKS & SHED UNITS

STELCON (INDUSTRIAL FLOORS) LTD.
CLIFFORDS INN. Tel. HOL 2916. LONDON, E.C.4



Agricultural Buildings

We are at the service of Architects for the supply of prefabricated farm buildings. Incorporated in existing layouts, they will save time, money and materials. We can also assist Architects by supplying all the units for the alteration and modernisation of existing farm buildings.

Johnston Brothers
(CONTRACTORS) LTD.

DOSELEY QUARRIES · DAWLEY · SALOP

LONDON OFFICE: IBEX HOUSE, MINORIES, LONDON, E.C.3

TEMPLASTER

SPECIFY

TEMPLASTER Filler is the result of scientific research to discover the perfect material as approved by a panel of Master Builders for making good plaster and woodwork of all kinds.

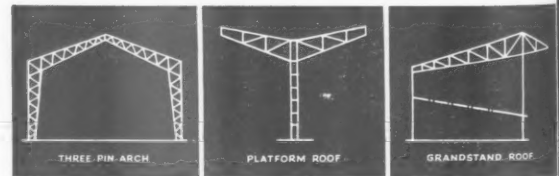
- IT NEITHER SHRINKS NOR SWELLS IN DRYING.
- IT STAYS IN AND DOES NOT BLOW.
- IT REQUIRES LITTLE OR NO RUBBING DOWN.
- IT POSSESSES STRONG ADHESIVE PROPERTIES.
- IT OFFERS A CHEMICALLY NEUTRAL SURFACE TO PAINTS.
- IT HAS NOT INCREASED IN PRICE

Its preparation is a laboratory controlled process allowing no variation in quality—thus it is both the most efficient and economical and the wisest choice. SEND FOR SAMPLE.

TEMPLASTER is made by the makers of TEMPLER'S famous White Paste Jointings, Fire Cement, Tile Cement, Plumbers' Black and other quality compounds.

C. G. TEMPLER & CO., LTD.,
109 BOLLO BRIDGE ROAD, ACTON, W.3. Phone: Acorn 0422/165

How TIMBER can replace STEEL in structural work



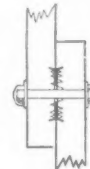
THE HAMPERING effect of the steel shortage can be minimised by the use of more timber for trusses, lattice girders, bracing members, etc. This technique is possible through "Bat" Timber

Connectors—providing immensely strong efficient joints—real engineering practice in timber.

Study the diagrams and it can easily be observed how the "Bat" Connector when bolted 'bites' into the wood. If you would like to know more about the possibilities of timber in structural work send for leaflet—free to all architects.



Double-sided square connector



Timber-to-timber joint



Single-sided square connector



TIMBER CONNECTORS

AUTOMATIC PRESSINGS LTD.

Bat Works, Blackheath, Birmingham, Staffs.



FOR over fifty years Libraco Ltd. have been designing and manufacturing furniture and woodwork of all descriptions for

LIBRARIES SCHOOLS & OFFICES

The illustration shows the HAMPSTEAD CENTRAL LIBRARY, recently equipped by Libraco Ltd.

Write for Illustrated Booklet.

LIBRACO

LIMITED

LOMBARD WALL, WOOLWICH ROAD,
CHARLTON, LONDON, S.E.7.
Telephone: Greenwich 3308 & 3309.

Dimensional Stability—the Architect must be able to rely on his materials. If the panelling moves or buckles the perfection of an interior scheme is marred.

That is why Masonite Presdwood only is good enough for the better jobs—it will not move or buckle; it is **Dimensionally Stable**. It's consistency in every respect—sheet after sheet—is an exclusive characteristic.

When Masonite was introduced to this country in 1928, the idea of a hardboard panelling

was new, untried. Architects experimented with it... and in due course the possibilities of a "re-made" timber board in sheet were proved. Today, the Masonite story is told by a dozen makers or more. Yes... but Masonite has been used and *proved* for over 20 years. The profession has confidence in it.

Specify Masonite — to be sure

Registered Trade Mark



Standard Presdwood

Tempered Presdwood

Enamelled Presdwood

GRAINLESS WOOD

MASONITE LTD Bevis Marks House, Bevis Marks, LONDON, E.C.3

Telephone: Avenue 2846

Telegrams: Etinosam, Ald, London

*The Painter
likes it*

because it is much easier to apply than any other paint, it avoids any brush marks, can be second coated within a few hours and his brushes can be cleaned with water.



*The
Householder
likes it*



because it has practically no smell, it gives a fine smooth and beautiful satin-gloss finish, durable and washable: and because the job is soon finished and the workmen out of the house. It is available in a range of attractive shades.

This new vinyl emulsion paint has now been on sale for several months, and practical trials have proved that it is something new and outstanding in the industry, and that the claims made for it are well justified.

Sold in gallon tins, ready for use. Ask for further particulars.

SMITH & RODGER LTD.
ELLIOT ST., GLASGOW, C.3
City 6341-2

* Smitrad, Glasgow

**SMITH &
RODGER**
PAINTS • •
VARNISHES

Two Notable Books by BRUCE ALLSOPP

B.Arch.(Liverpool), A.R.I.B.A., A.M.T.P.I., Lecturer in Architecture at King's College in the University of Durham.

Art and the Nature of Architecture

The book is an important contribution to present-day thought on aesthetics. In particular, the author considers the modern trends in architecture and the establishment of standards of criticism by which they may be judged. 136 pages, with eight full-page photographs. 16s. net.

Decoration and Furniture

The allied arts of interior decorating and furnishing are perhaps the oldest in the world. Their development in England from Saxon times until 1939, and their relationship to political and sociological events and trends in each period are described in this beautifully produced book of 252 pages, illustrated with four colour plates and 136 photographs. 75s. net.

Sir Isaac Pitman & Sons Ltd

Parker Street, Kingsway, London, W.C.2

FLOORING AT ITS BEST

**SCHOOLS • OFFICES
HOSPITALS
HOTELS • FLATS
SHOW ROOMS**

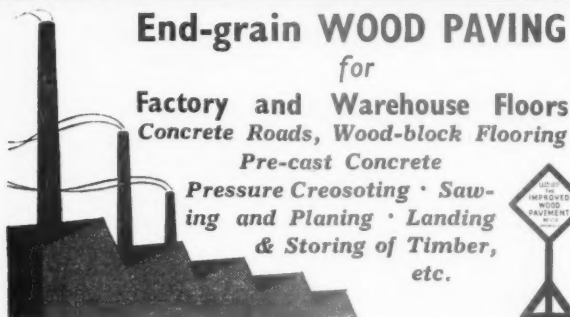
E.J. ELGOOD LTD.
INSULCRETE WORKS, YEOMAN ST. S. E. 8

**ELCO CORK TILES
NOEL WOOD MOSAIC
GRANOFLEX ACID RESISTING FLOORING
ELCO RUBBER TILES
UNIFLOR ASPHALT TILES**

OVER 1000 COMPLETED CONTRACTS SINCE 1945

INDUSTRIAL FLOORING SPECIALISTS
TELEPHONE: BERmondsey 1144 (6 lines)

End-grain WOOD PAVING
for
**Factory and Warehouse Floors
Concrete Roads, Wood-block Flooring
Pre-cast Concrete
Pressure Creosoting • Saw-
ing and Planing • Landing
& Storing of Timber,
etc.**



THE IMPROVED WOOD PAVEMENT Co. Ltd.
BLACKFRIARS HOUSE, NEW BRIDGE STREET, LONDON, E.C.4.
Telephone: CENTral 9326



Expert treatment of timber decay

The insidious workings of the Death Watch Beetle are often not apparent until serious damage has been done. Only the scientific use of a penetrating and persistent insecticide will eradicate these borers. "WYKAMOL" polychlorophthalene can be confidently recommended and the experience and technical skill of our staff is at your disposal.

Send for free Technical Brochure
"The Control of INSECT and FUN-
GAL DESTROYERS OF TIMBER."

A rafter in the roof of Chichester Cathedral showing damage by the Death Watch Beetle.

For advice and further details write to:—

RICHARDSON & STARLING LTD.
Members of the British Wood Preserving Association
HYDE STREET • WINCHESTER • Tel: 2537

Try **BUTTERFLY BRAND** for
your next ORDER
or CONTRACT

for **MASKING TAPES CLOTH or PAPER**



SAMUEL JONES & CO. LTD.
NEW BRIDGE ST. LONDON, E.C.4. TEL: CENTRAL 6500

**Reliable
Quality
STOCK SERVICE**

EETO

**CYLINDER
JACKETS.**



IN SECTIONS
for **EASY** fitting
CONNECTING PIPES
OFFER NO DIFFICULTY

A P P R O V E D

... by leading Heating Engineers
and Public Authorities throughout
the Country.

EETO INSULATIONS

RIVER STREET, BOLTON, Lancs. Tel: BOLTON 3764

EETO Jackets are also made for Horizontal
Cylinders, Square and Rectangular Tanks.

CLASS
Advertiser
Manager,
13, Queen
should reu
morning fo
paper.
Replies
care of "T
given abou

Public
25s. 1

The eng
advertise
Office of
Employment
aged 18-64
inclusive u
accepted f
of Vacanci
COUNTY

Vacancie
CIVIL E
Staff of
Engineer
Appointm
capacity,
the J.I.C.
Service, ra
to A.P.T.,
If prefer
one. Cand
veying an
struction o
of schedul
Although
discussed
selected cr
indicate th
Relations of
Canvassi
disqualifi
Applican
the Local
Act, 1937,
pass a med
Applicati
ence and c
names and
reference n
S. McColl,
Architect
Hamilton,

COUNTY

Vacancie
ARCHITE
the Count
(Hamilton)
Appointm
capacity,
the J.I.C.
Service, ra
to A.P.T.,
If prefer
one. Cand
perience i
housing de
Although
discussed a
candidates,
the prefer
of the app
Canvassi
disqualifi
Applican
the Local
Act, 1937,
pass a med
Applicati
ence and c
names and
reference n
McColl, A
Architect
Hamilton,

TEMPOR

Applicati
and experie
Senior Arc
Water Eng
of £800 per
Candidate
Institute o
eight years
design and
Applicant
years of
The succo
furnish a
into a cont
with the C
Applicati
age, quali
copies of n
will be rec
and 54,
than the 3

4th April

CLASSIFIED ADVERTISEMENTS

Advertisements should be addressed to the Advt. Manager, "The Architects' Journal," 9, 11 and 13, Queen Anne's Gate, Westminster, S.W.1, and should reach there by first post on Friday morning for inclusion in the following Thursday's paper.

Replies to Box Numbers should be addressed care of "The Architects' Journal," at the address given above.

Public and Official Announcements

2s. per inch; each additional line, 2s.

The engagement of persons answering these advertisements must be made through a Local Office of the Ministry of Labour or a Scheduled Employment Agency if the applicant is a man aged 18-64 inclusive or a woman aged 18-59 inclusive unless he or she, or the employment, is accepted from the provisions of the Notification of Vacancies Order, 1952.

COUNTY COUNCIL OF THE COUNTY OF LANARK.

HOUSING DEPARTMENT.
Vacancies exist within the County Council for CIVIL ENGINEERING ASSISTANTS on the Staff of the County Housing Architect and Engineer (Hamilton).

Appointments range from a Junior to Senior capacity, and salary will be in accordance with the J.I.C. Scheme of Salaries and Conditions of Service, ranging from A.P.T. Grade I (£430-£475) to A.P.T. Grade VIII (£735-£810).

If preferred, appointment can be a temporary one. Candidates should have experience in surveying and contouring of land; design and construction of road, etc., works, and the preparation of schedules and final measurements. Although the salary grade and scale will be discussed and adjusted at the interview by selected candidates, written applications should indicate the preference compatible with the qualifications of the applicant.

Canvassing, directly or indirectly, will be a disqualification.

Applicants will be subject to the provisions of the Local Government Superannuation (Scotland) Act, 1937, and successful applicants will require to pass a medical examination.

Applications, stating age, particulars of experience and qualifications, and accompanied by the names and addresses of three referees, to whom reference may be made, should be lodged with S. McColl, A.R.I.B.A., F.R.I.A.S., County Housing Architect and Engineer, 25, Beckford Street, Hamilton, not later than 30th April, 1952.

WM. C. BROWNIE,

County Clerk.

6648

COUNTY COUNCIL OF THE COUNTY OF LANARK.

HOUSING DEPARTMENT.
Vacancies exist within the County Council for ARCHITECTURAL ASSISTANTS on the Staff of the County Housing Architect and Engineer (Hamilton).

Appointments range from a Junior to Senior capacity, and salary will be in accordance with the J.I.C. Scheme of Salaries and Conditions of Service, ranging from A.P.T. Grade I (£430-£475) to A.P.T. Grade VIII (£735-£810).

If preferred, appointment can be a temporary one. Candidates for Senior post should have experience in the design and construction of large housing developments.

Although the salary grade and scale will be discussed and adjusted at the interview by selected candidates, written applications should indicate the preference compatible with the qualifications of the applicant.

Canvassing, directly or indirectly, will be a disqualification.

Applicants will be subject to the provisions of the Local Government Superannuation (Scotland) Act, 1937, and successful applicants will require to pass a medical examination.

Applications, stating age, particulars of experience and qualifications, and accompanied by the names and addresses of three referees, to whom reference may be made, should be lodged with S. McColl, A.R.I.B.A., F.R.I.A.S., County Housing Architect and Engineer, 25, Beckford Street, Hamilton, not later than 30th April, 1952.

WM. C. BROWNIE,

County Clerk.

6647

CITY OF PORT ELIZABETH.

VACANCY:
TEMPORARY SENIOR ARCHITECTURAL ASSISTANT.

Applications are invited from suitably qualified and experienced persons for the post of Temporary Senior Architectural Assistant in the City and Water Engineer's Department at a fixed salary of £800 per annum, plus cost of living allowance.

Candidates should be Associates of the Royal Institute of British Architects and have at least eight years' practical experience in architectural design and practice.

Applicants should be physically fit and under 60 years of age.

The successful candidate will be required (a) to furnish a certificate of medical fitness; (b) enter into a contract of service of three years' duration with the City Council.

Applications containing full details concerning age, qualifications and experience and enclosing copies of not more than three recent testimonials will be received by Messrs. Davis & Soper Ltd., 22 and 54, St. Mary Axe, London, E.C.3, not later than the 3rd May, 1952.

G. H. BREWER,

Acting Town Clerk.

6669

4th April, 1952.

HEMEL HEMPSTEAD DEVELOPMENT CORPORATION.

ASSISTANT ARCHITECT. Salary scale £460-£585.

Applicants must have passed Intermediate Examination of R.I.B.A.

Conditions of appointment, including superannuation, broadly similar to Local Government Officers' Charter.

Housing accommodation may be provided. Forms of application (to be applied for in an envelope marked "Architect"), which should be returned by 25th April, 1952, may be obtained from the undersigned.

W. O. HART,

General Manager.

Westbrook Hay,

Hemel Hempstead, Herts.

6666

SUDAN GOVERNMENT.

The Ministry of Education requires SENIOR ASSISTANTS and ASSISTANTS, aged 25 to 40 or thereabouts for service in the Sudan Khartoum Technical Institute to teach Building Construction and allied trades to full-time day students up to the standard of National Diploma. (a) Candidates for Senior Assistant should hold a degree or its equivalent, e.g., R.I.B.A., Royal Institute of Chartered Surveyors, Institute of Civil Engineers, Institute of Structural Engineers, Corporate Association of Architects and Surveyors; industrial and teaching experience would be an added qualification. (b) For Assistant, candidates should hold the Higher National Certificate in Building, Surveying or Structural Engineering.

Appointments will be on probation for a short-term contract for two years in the salary scale £E950 to £E1,675 for Senior Assistants and £E750 to £E1,400 for Assistants, both with post-service bonus. Starting rate would be determined according to age, qualifications and experience, and a cost of living allowance may also be payable. Outfit allowance of £E50 on appointment. There is at present no income tax in the Sudan. Free passage on appointment.

Further information and application form will be sent on receipt of a postcard only addressed to the Sudan Agent in London, Wellington House, Buckingham Gate, London, S.W.1, quoting 1010(a) or (b), and name and address in block letters.

6670

THE UNIVERSITY OF LIVERPOOL.

Applications are invited for the post of SENIOR LECTURER AND STUDIO INSTRUCTOR in the School of Architecture, with special responsibilities in Architectural Design, at a salary scale of £1,150-£1,350 per annum.

Applications, accompanied if possible by drawings or photographs of work, two testimonials, and the names of three referees, should be received not later than Monday, 5th May, 1952, by the undersigned.

STANLEY DUMBELL,

Registrar.

March, 1952.

6637

CITY OF COVENTRY.
ARCHITECTURAL AND PLANNING DEPARTMENT.

Applications are invited for the following appointments in the Quantity Surveying Section of my Department:—

(a) ASSISTANT QUANTITY SURVEYOR.

Grade A.P.T. Va (£600-£720-£660).

(b) QUANTITY SURVEYING ASSISTANT.

Grade A.P.T. IV (£530-£715-£575).

(c) QUANTITY SURVEYING ASSISTANT.

Grade A.P.T. II (£470-£715-£515).

The person appointed to post (a) who should be of at least Inter. R.I.C.S. or equivalent standard, is to carry out measurement and accounts settlement on major contracts including a large volume of housing. Experience of negotiated schemes for housing work is desirable.

The persons appointed to posts (b) and (c), who should be approaching Inter. R.I.C.S. or equivalent standard, are to make interim valuations and carry out measurement and account settlement on smaller housing contracts, and to assist in the duties of (a).

Housing accommodation may be made available in certain circumstances for appointment (a).

All employees are expected to belong to an appropriate organisation as referred to in Paragraph 44 of the Charter.

Applications, on forms available from the undersigned (please state post for which applying), by Wednesday, 23rd April, 1952.

D. E. GIBSON,

City Architect and

Planning Officer.

Bull Yard, Off Warwick Row,

Coventry.

2nd April, 1952.

6664

CITY OF LEICESTER.

Applications are invited for the appointment of MAINTENANCE ARCHITECTURAL ASSISTANT in the City Surveyor's Department. The salary will be in accordance with Grade A.P.T. IV-VI (£530-£710), according to qualifications and experience, and the appointment is subject to the provisions of the Local Government Superannuation Act, 1937.

Applicants should have a good knowledge of Architectural practice and be experienced in the maintenance of buildings, preparation of specifications, plans, and supervision of work.

Applications, including age, qualifications and experience, together with copies of testimonials, should reach the undersigned not later than 30th April, 1952.

JOHN L. BECKETT, M.Inst.C.E.,

City Surveyor.

Town Hall, Leicester.

6678

EAST KILBRIDE DEVELOPMENT CORPORATION.

Applications are invited for the post of CHIEF ARCHITECT AND PLANNING OFFICER to the Development Corporation.

Candidates must be fully qualified Architects with experience in planning. The successful applicant will be in charge of the Department of Architecture and Planning, including the administration of the Department.

The salary scale is £1,750 to £2,000 per annum, rising by annual increments (two at £75 and one at £100). A pacing will be given according to experience, etc. In the event of a relevant increase in salaries in this range, the above would be subject to adjustment.

The appointment is subject to the Corporation's Conditions of Service and Superannuation Agreement. The selected candidate will be required to pass a medical examination. A house will be made available if needed.

Application forms may be obtained from the General Manager, Torrance House, East Kilbride, to whom they should be returned not later than 23rd April, 1952.

Canvassing of the members of the Corporation will constitute an absolute disqualification. 6663

COUNTY OF ESSEX.

COUNTY ARCHITECT'S DEPARTMENT.

Applications are invited for the following appointments on the established staff of the County Architect's Department:—

(a) ASSISTANT ARCHITECTS, Grade V. A.P.T.D. Salary at a rate of not exceeding £620 a year.

(b) ASSISTANT ARCHITECTS, Grade IV. A.P.T.D. Salary at a rate of not exceeding £575 a year.

(c) ASSISTANT ARCHITECT, Grade III. A.P.T.D. Salary at a rate of not exceeding £455 a year.

Candidates should have had good general experience in planning, designing and construction. The work includes buildings for education and health purposes, etc.

In fixing the commencing salary in each case regard will be had to the experience and qualifications of the successful candidates.

Canvassing, either directly or indirectly, is forbidden.

Applications must be made on a form obtainable from the County Architect, Mr. H. Conolly, F.R.I.B.A., at the address stated below (please state post for which form is required), and when completed the form, accompanied by copies of not more than three recent testimonials, must be sent as early as possible to Chelmsford Employment Exchange, Wells Street, Chelmsford, with reference number M/4/A quoted on the application form and on the covering envelope.

JOHN E. LIGHTBURN,

Clerk of the County Council.

County Hall, Chelmsford, Essex.

8th April, 1952.

6684

HARROW URBAN DISTRICT COUNCIL.

ENGINEER AND SURVEYOR'S DEPARTMENT.

APPOINTMENT OF MAINTENANCE

INSPECTOR A.P.T. GRADE I.

Applications are invited for the appointment of Maintenance Inspector (A.P.T. Grade I; salary scale, £440-£485 per annum, plus London weighting), in the Department of the Engineer and Surveyor.

Applicants should be able to carry out inspections for repairs and decorations to Council properties; to prepare appropriate reports with estimates of cost; and to supervise the carrying out of such work. A sound knowledge of all branches of building construction is essential, and experience of specification writing and a recognised qualification will be advantageous.

The Council is unable to assist in obtaining housing accommodation for the successful candidate.

The appointment will be subject to the provisions of the Local Government Superannuation Act, 1937, to the passing of a medical examination, and to the National Joint Council's Scheme of Conditions of Service.

Canvassing will be a disqualification. Forms of application may be obtained from the undersigned, to whom they should be returned not later than Friday, 25th April, 1952.

H. WELLS,

Clerk of the Council.

Council Offices, Harrow Weald Lodge,

Harrow, Middlesex.

6683

CIVIL SERVICE.

QUANTITY SURVEYORS and ASSISTANT QUANTITY SURVEYORS are required throughout the United Kingdom by the Ministry of Works, Admiralty, War Department, Air Ministry, Ministry of Supply, and occasionally overseas by the Admiralty, Air Ministry and War Department. Although these are not established posts, some of them have long term possibilities, and competitions are held periodically to fill established vacancies.

Salaries for these professional posts in London for Officers over 26 years of age range from £600 to £900 per annum in lower grades and from £900 to £1,200 per annum in the higher grades. They are slightly lower in the provinces. Salaries on entry will be in accordance with age, qualifications and experience.

Vacancies also exist for QUANTITY SURVEYING ASSISTANTS and others having some experience in a Quantity Surveyor's office, at salaries ranging from £300 per annum upwards.

Applicants should write, quoting Ref. J.O.S., to Room 403, Ministry of Labour and National Service, Technical and Scientific Register, Almack House, 26, King Street, London, S.W.1.

6681

Tenders for Contracts

6 lines or under, 12s. 6d.; each additional line, 2s.
NEWCASTLE REGIONAL HOSPITAL BOARD
SPECIAL AREA COMMITTEE FOR
CUMBERLAND AND NORTH WESTMORLAND.

City General Hospital, Carlisle.

New (56 beds) Ward-Block.
The Committee proposes to construct a new single-storey independent ward-block for 56 patients on a level site immediately adjoining the present hospital. The site is bounded on two sides by roads and is within half mile of the main railway goods station. The building, which will be of traditional brick construction, will contain two ward-units, and will have a floor area of about 21,000 super feet. The successful contractor will be given uninterrupted possession of the site during the period of construction.

The building has been planned and will be erected under the direction of the Architect to the Newcastle Regional Hospital Board, P. H. Knighton, M.B.E., A.R.I.B.A., and tender documents will be ready for distribution by the end of April, 1952.

Contractors wishing to tender for this project are asked to submit their names to N. Edgar, A.R.I.B.A., Divisional Architect, at the address given below not later than 25th April, 1952. A limited number of selected contractors may be invited to tender and the lowest or any tender will not necessarily be accepted.

The date for the return of tenders to the undersigned will be notified when tender documents are issued at the end of April but will be three to four weeks later.

W. J. BALL,
Clerk to the Special Area
Committee.

1, Lonsdale Street, Carlisle. 6668

Architectural Appointments Vacant

4 lines or under, 7s. 6d.; each additional line, 2s.

The engagement of persons answering these advertisements must be made through a Local Office of the Ministry of Labour or a Scheduled Employment Agency if the applicant is a man aged 18-64 inclusive or a woman aged 18-59 inclusive unless he or she, or the employment, is excepted from the provisions of the Notification of Vacancies Order, 1952.

PROMINENT firm of Paint Manufacturers require ARCHITECTURAL ASSISTANT in their London office to prepare colour schemes and specifications for decoration of buildings. A high standard of perspective rendering in watercolour is required together with experience in decoration of buildings. Reply, giving details of experience, age, salary required to Box 6658.

SENIOR ARCHITECTURAL ASSISTANT required for London office. Must be qualified and be able to take full charge of contracts. Write, stating experience, type of work accustomed to, age and salary. Box 6642.

THE CO-OPERATIVE WHOLESALE SOCIETY LTD. invite applications for the appointment of an ASSISTANT QUANTITY SURVEYOR on the staff of the Manchester Architect's Department, at a commencing salary of £500-£550 per annum, according to experience, ability and qualifications.

Applicants should have experience in the preparation of Bills of Quantities, measuring and adjusting variations and able to undertake work with a minimum of supervision.

The appointment is permanent and the successful candidate will be required to undergo a medical examination for entry into a compulsory Superannuation Scheme.

Application, stating age, experience and qualifications to be addressed to Mr. G. S. Hay, Chief Architect, Co-operative Wholesale Society Ltd., 1, Balloon Street, Manchester, 4. Apply Labour Exchange. 6671

EXPERIENCED ASSISTANT (up to Final standard) required for general duties, mainly housing work, in busy provincial practice in Wiltshire. Married man (25/35) preferred. Flat available. Write, giving age, experience, salary required, to Box 6675.

ARCHITECTURAL ASSISTANT required immediately for small but busy Camb. office. Varied and interesting work. Opportunity to specialise in Grain Storage Buildings and Plant. Commencing salary between £432 and £430, according to age and experience. Excellent long term prospects for conscientious type. Full details to Box 6679.

ARCHITECTURAL ASSISTANT (aged about 25) required for West End office of large British Industrial concern. Salary according to age and experience. Pension fund. Please write, quoting No. 187, to Box 5769, c/o Charles Barker & Sons, Ltd., 31, Budge Row, London, E.C.4. 6682

Architectural Appointments Wanted

A.R.I.B.A. (28), contemporary outlook, 3 years' experience, seeks position with small London firm offering scope for imaginative, practical and administrative ability. Box 426.

CHARTERED ARCHITECT (35), keen and energetic, seeks position in London area as SENIOR ASSISTANT. 18 years' practical experience. Box 424.

EXPERIENCED ASSISTANT, 19 years (37), desires responsible position with London practice. Energetic, progressive and competent. Immediately available. Box 428.

ARCHITECTURAL ASSISTANT requires responsible situation, small progressive London office. Comprehensive experience. Preferably a sole Assistant to private or company Architect and Surveyor. Box 429.

ASSOCIATE (31), school and office trained, 5 years' practical experience in general practice of wide variety, seeks progressive post, with scope for ability and initiative, in country practice, with prospects. Write Box 430.

ARCHITECTURAL ASSISTANT of many years' experience requires post as CHIEF DRAUGHTSMAN in London Architect's office. Box 431.

A.R.I.B.A., 4 years as Assistant Architect in busy office carrying out contemporary works, with complete experience of supervision from initial surveys to final stages, requires change. Interested in a position where contemporary outlook, ability, and hard work are appreciated. Box 6680.

Other Appointments Vacant

4 lines or under, 7s. 6d.; each additional line, 2s.

The engagement of persons answering these advertisements must be made through a Local Office of the Ministry of Labour or a Scheduled Employment Agency if the applicant is a man aged 18-64 inclusive or a woman aged 18-59 inclusive unless he or she, or the employment, is excepted from the provisions of the Notification of Vacancies Order, 1952.

STRAMIT BOARDS LIMITED are increasing their London representation, and would welcome applications from active men with a good technical knowledge of building and some experience of selling. Write fully, giving age and complete details of career to date, to: The Manager, Stramit Boards Limited, Packet Boat Dock, Cowley Peachey, Nr. Uxbridge. 6683

BRIXTON SCHOOL OF BUILDING—Required, as soon as possible, ASSISTANT, Grade B, to teach Building Construction and Administration subjects, with Higher National Diploma or Certificate in Building or comparable qualifications and administrative experience in building industry. Commencing salary varies between £486 and £773, and maximum between £773 and £791.

Application forms from Secretary at School, Ferndale Road, S.W.4, returnable by 30th April 1952. (357) 6677

Partnership

4 lines or under, 12s. 6d.; each additional line, 2s.

PARTNERSHIP, or position with partnership within a reasonable time, desired by Associate (41). Experienced in all classes of work at home and overseas. Some capital. Box 6673.

Durtnell
Builders since 1591



The Durtnells have been Builders for 360 years and still proudly adhere to the ancient tradition of quality craftsmanship — leavened, of course, by modern outlook.

R. DURTNELL & SONS, LTD., BRASTED, Nr. Sevenoaks, KENT

Tel.: Brasted 105-6.

SEVENOAKS, St. John's Hill. Tel.: Sevenoaks 3186-4.

OXTED Station Road East. Tel.: Oxted 498.

recently published

FOUNDATIONS

FOR HOUSES AND OTHER SMALL STRUCTURES

by W. H. Elgar, M.A., M.E.C., A.M.I.C.E., FRICS Forewords by Noel Dean, M.A. and James Macgregor, F.S.A.
How to arrive at an adequate, safe foundation design whatever the soil and subsoil; how to avoid needless waste of money below ground level; how to test the behaviour and physical properties of subsoils. The book contains 92 pages with 52 line illustrations.
Price 12s. 6d. net, postage 5d.

THE ARCHITECTURAL PRESS 9 Queen Anne's Gate SW1

*Insulating Board
and Hardboard*

INSULITE PRODUCTS CORPORATION LIMITED
41 KINGSWAY, LONDON, W.C.2. TEMple Bar 9385/7

Services Offered

4 lines or under, 7s. 6d.; each additional line, 2s.
DRAUGHTSMANSHIP, Designing and Artistry for all trades and professions. C. Leslie New, Architectural Designer, 46, Westfield Road, Birmingham, 15. Phone: EDG. 3723. 6514

DESIGNS, Layouts, Perspectives to commercial or Academy standard. Moderate fees. Turner, 3, George Street, Croydon. 2930 and Brighton 27938. 6622

SPARE time Tracing Work wanted. Ink or pencil, on linen or paper. 1d. per sq. in. Write Box 6674.

ARCHITECTS and Surveyors in W.I. area have staff available for Surveys, Schemes, Working Drawings, etc. Work promptly dealt with in any district. Box 6676.

For Sale or Wanted

4 lines or under, 7s. 6d.; each additional line, 2s.
FOR SALE.—Office Drawing Table and Desk combined, complete with drawers and with fluorescent fitment over. £30 or near offer. Box 6663.

FOUR Screw Dummy Level, complete with tripod, staff, ranging rods and chain. £25 or offer. Write Box 6672.

Miscellaneous

4 lines or under, 7s. 6d.; each additional line, 2s.
A. J. BINNS, LTD., Specialists in the supply and fixing of all types of Fencing, Gates and Cloakroom Equipment. Harvest Works, 96/107, St. Paul's Road, N.L. Canonbury 2061.

WINKFIELD MANOR NURSERIES, ASCOT, lay out Rock and Formal Gardens and Labourless "Allweather" Tennis Courts. Eight Chelsea Gold Medals since 1947. Contractors to the Festival of Britain. Winkfield Row 393. 1716

HOTELS

DOUGLAS (I.O.M.).—HOTEL METROPOLE. Tel. 2381. Fully licensed. Resident orchestra. Ballroom. Room service. Manx farm produce. Phones all rooms. Ideal Holiday. Moderate tariff. Brochure apply I. Barker. 6502

FENCING FOR ALL PURPOSES supplied and erected. Established over 100 years. Cloakroom equipment also a speciality. Write Parker, Winder & Church Ltd., 80, Broad Street, Birmingham, 1. (Midland 5001.) 6526

Educational Announcements

4 lines or under, 7s. 6d.; each additional line, 2s.
R. I.B.A. and T.P.I. EXAMS.—Stuart Stanley (Tutor Sch. of Arch., Lon. Univ.) and G. A. Crockett, M.A./B.A., F.I.A.R.I.B.A., M.A./M.T.P.I. (Prof. Sir Patrick Abercrombie in assn.) prepare students by correspondence tuition, 10, Adelaide Street, Strand, W.C.2. TEM. 1603/4.

RIBA INTER, FINAL & SPECIAL FINAL

Postal Courses starting now in all or any subject including Design and Professional Practice.

THE ELLIS SCHOOL

Principal: A. B. Waters, M.B.E., G.M., F.R.I.B.A.
 103B, OLD BROMPTON RD., LONDON, S.W.7
 Phone: KEN 4477/8/9 and at Worcester

QUANTITY SURVEYING

Postal Courses for R.I.C.S., I.A.S., and I.Q.S. Exams, in all or any subject starting now. Tuition by well qualified tutors under the direction of the Principal: A. B. Waters, M.B.E., G.M., F.R.I.B.A. Descriptive booklet on request.

THE ELLIS SCHOOL

103B, OLD BROMPTON RD., LONDON, S.W.7
 Phone: KEN 4477/8/9 and at Worcester

SIGNS and LETTERS

IN METAL, WOOD, PERSPEX.
 PRODUCED IN OUR OWN UP-TO-DATE WORKSHOPS BY SKILLED CRAFTSMEN BUILT TO YOUR SPECIFICATION.

SIGN SERVICE 9, HIGH STREET, BIRMINGHAM 23
 Phones: Erdington 5234/5

METAMICA

Vermiculite Scientifically Applied

* AGGREGATE

* IN SITU APPLICATIONS

* PREFABRICATED PRODUCTS

Technical Bulletins and Details from
 METAMICA LTD., OXGATE LANE, N.W.2
 GLA 6554

WHITE FACING BRICKS

(S. P. W. BRAND)

Telephone: BULwell 78237-8 • Telegrams: "Maclime", Bulwell, Nottingham

M. MCCARTHY & SONS, LTD
 BULWELL • NOTTINGHAM

Towards better CATALOGUES

You don't have to suffer in silence every time you get a catalogue that annoys you because it doesn't give the information you want, or doesn't give it in a convenient form.

If you care to let us know of any sub-standard catalogues that you receive we shall be pleased to contact the manufacturers concerned and explain to them how the information about their products should be presented in order to be of maximum value to the user.

We have done our bit, over the last fifteen years, towards raising the standard of building trade publicity and will gladly produce to those interested evidence of our efforts.



Building Industries Services Limited

90, EBURY STREET, LONDON, S.W.1
 Telephone: Sloane 0474

the occasion demands

Superb cuisine
 Fine wines
 Impeccable service



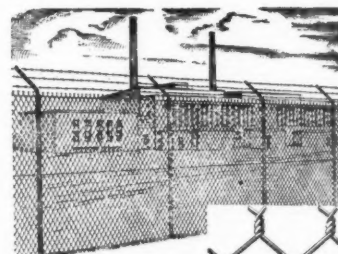
Banqueting at the
CUMBERLAND HOTEL, W.1

A FIRST CLASS TRACING CLOTH



MANUFACTURERS
J. N. HOPKINSON LTD.
 16 JOHN DALTON ST., MANCHESTER 2

LIGHTNING PROTECTION
 By
FURSE
 W. J. FURSE & CO. LTD.
 10, TRAFFIC STREET, NOTTINGHAM
 LONDON—MANCHESTER—BRISTOL



CHAIN LINK FENCING

A complete service

BOULTON AND PAUL LIMITED

NORWICH

CRC 1/2

JUST ANOTHER OF

Sommerfeld's
 PRODUCTS

SOMMERFELDS LTD WELLINGTON SHROPS • TELE 1000

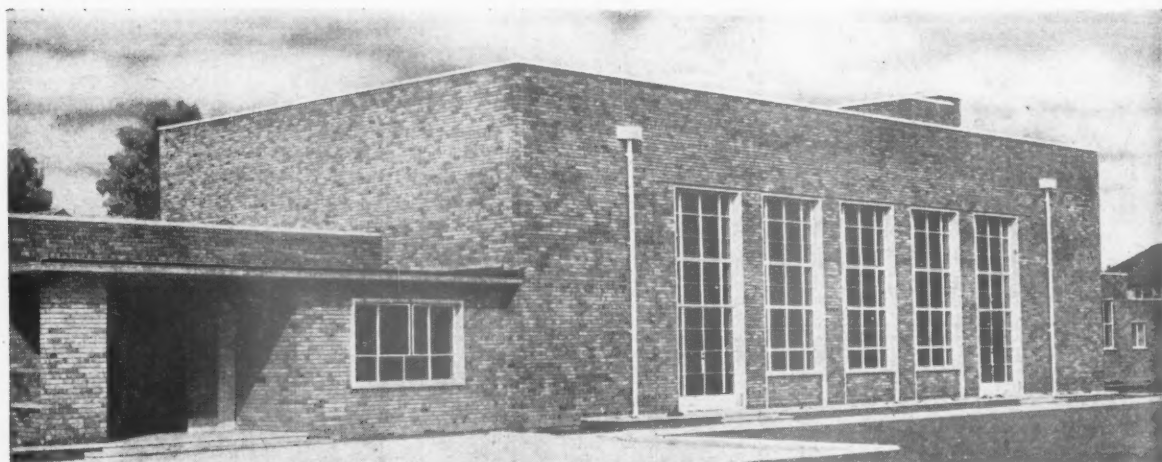


DOOR AND WINDOW FRAMES

Alphabetical Index to Advertisers

| | PAGE | | PAGE | | PAGE |
|---|---------|---|--------|--|--------|
| Aidas Electric, Ltd. | xlii | Greenwood's & Alrva Ventilating Co., Ltd. | ii | Rownson, Drew & Clydesdale, Ltd. | |
| Aircrew Company & Jigwood, Ltd. | xxvii | Gypsee Products, Ltd. | xxxiv | Sanders, Wm., & Co. (Wednesbury), Ltd. | xxviii |
| Anderson Construction Co., Ltd. | | Gypsum Mines, Ltd. | iii | Sarco Thermostats, Ltd. | xxviii |
| Anderson, D., & Son, Ltd. | ii | Harvey, G. A., & Co. (London), Ltd. | iii | Sadd, John, & Sons, Ltd. | xxiv |
| Architectural Press, Ltd. | liv, lx | Hollis Bros., Ltd. | xxxii | Sealanco (St. Helens), Ltd. | |
| Armstrong Cork Co., Ltd. | xlv, l | Holoplast, Ltd. | viii | Sealocrete Products, Ltd. | vi |
| Ashwell & Nesbitt, Ltd. | lii | Hope, Henry, & Sons, Ltd. | xlii | Semtex, Ltd. | xliii |
| Associated Lead Manufacturers, Ltd. | xxv | Hopkinson, J. N. Ltd. | lxi | Sign Service | li |
| Austin, James, & Sons, Ltd. | lvi | Ibstock Brick & Tile Co., Ltd. | lxii | Smith & Pearson, Ltd. | |
| Automatic Pressings, Ltd. | lii | Ingersoll Locks, Ltd. | i | Smith's Fireproof Floors, Ltd. | lvii |
| Baker, C., & Co. | xlvi | Insulite Products Corporation, Ltd. | lx | Smith & Rodger, Ltd. | |
| Baume & Co., Ltd. | lxv | International Correspondence Schools | lxix | Solignum, Ltd. | |
| Baldwin, Son & Co., Ltd. | lxv | International Paints, Ltd. | lxix | Sommerfelds, Ltd. | lxi |
| Bigwood, Joshua, & Son, Ltd. | xxxii | Improved Wood Pavements Co., Ltd. | lxviii | Standard Patent Glazing Co., Ltd., The | li |
| Booth, James, & Co., Ltd. | lx | Johnston Bros. (Contractors), Ltd. | lvi | Stelcon (Industrial Floors), Ltd. | lvii |
| Boulton & Paul, Ltd. | lxii | Jones, Samuel, & Co., Ltd. | lxviii | Sterling Foundry Specialities, Ltd. | |
| Briggs, Wm., & Sons, Ltd. | lxv | Lacrinoid Products, Ltd. | xxii | Storry, Smithson & Co., Ltd. | |
| British Electricity Authority | xl | Laing, John, & Son, Ltd. | lvii | Sutcliffe Speakman & Co., Ltd. | xxi |
| British Constructional Steelwork Assoc. | xxix | Libraco, Ltd. | lxvii | Sulzer Bros. (London), Ltd. | lxiii |
| British Plaster Board, Ltd. | lxii | Lightfoot Refrigeration Co., Ltd. | xxxiii | Tarmac, Ltd. | |
| British Trolley Track Co., Ltd. | lxv | Lion Foundry Co., Ltd. | lxvi | Taylor, R., & Co. (Ironfounders), Ltd. | lvi |
| Broad & Co., Ltd. | lxv | Magnet Timber, Ltd. | lxvi | Templer, C. G., & Co., Ltd. | |
| Building Industries Service | lxv | Mallinson, W., & Sons, Ltd. | lxvii | Thermacoust, Ltd. | |
| Burn Bros. (London), Ltd. | xxxviii | Marley Tile Co., Ltd., The | lxvii | Thermalite, Ltd. | |
| Cape Asbestos Co., Ltd. | lxiii | Masonite, Ltd. | lxvii | Thorn, J., & Sons, Ltd. | |
| Carron Company | xxvi | McCarthy, M., & Sons, Ltd. | lxi | T.I. Aluminium, Ltd. | |
| Clark, James, & Eaton, Ltd. | xiv | Meta Mica, Ltd. | lxi | T.M.C. Harwell (Sales), Ltd. | |
| Colt, W. H. (London), Ltd. | lxviii | Metal Sections, Ltd. | | Tretol, Ltd. | |
| Colthurst, Symons & Co., Ltd. | lxviii | Midland Electric Mfg. Co., Ltd. | lxiv | Tucker, Duncan (Tottenham), Ltd. | |
| Copper Development Association | lxv | Mills Scaffold Co., Ltd. | xxxv | Turners Asbestos Cement Co., Ltd. | |
| Cumberland Hotel | lxv | M.K. Electric, Ltd. | lxviii | United Kingdom Provident Institution | |
| Davidson, C., & Sons, Ltd. | xxx | Morris Slinger Co., Ltd. | lxviii | Universal Asbestos Manufacturing Co., Ltd. | xxviii |
| Docker Brothers | lx | National Federation of Clay Industries | lxviii | Val De Travers Asphalt Paving Co., Ltd. | |
| Durasteel, Ltd. | lxv | Norwood Steel Equipment, Ltd. | lxviii | Venetican Vogue, Ltd. | xliv |
| Durnell, R., & Sons, Ltd. | lxv | Northern Aluminium Co., Ltd. | lxviii | Vulcan Products, Ltd. | |
| Econa Modern Products, Ltd. | lxv | Permatops, Ltd. | lxviii | Walker, Crowther & Co., Ltd. | |
| Edison Swan Electric Co., Ltd. | lxv | Permanite, Ltd. | lxviii | Ward, Thos. W. Ltd. | lxvii |
| Eeto Insulations | lxvii | Phillips Electrical, Ltd. | lxvii | Wareite, Ltd. | lv |
| Empire Stone Co., Ltd. | lxvii | Phoenix Rubber Co., Ltd. | lxvii | Wardle Engineering Co., Ltd. | xxxvii |
| Elgood, E. J., Ltd. | lxvii | Pilkington Bros., Ltd. | lxvii | Weatherfoil Heating Systems, Ltd. | |
| Ellie School of Architecture, The | lxvii | Pitman, Sir Isaac, & Sons, Ltd. | lxvii | Whittle, R. W., Ltd. | |
| Falkirk Iron Co., Ltd., The | lxvii | Porn & Dunwoody (Lifts), Ltd. | lxvii | Williams, John, & Sons (Cardiff), Ltd. | iv, v |
| Familoe, T. & W., Ltd. | xxxix | Prodorite, Ltd. | lxvii | Williams & Williams, Ltd. | xxvii |
| Ferodo, Ltd. | lxvii | Radiation (Large Cooking Equipment), Ltd. | x | Wood, Edward, & Co., Ltd. | |
| Finlock Gutters, Ltd. | lxvii | Rawlphug Co., Ltd., The | lxviii | Wright, John, & Sons (Vencers), Ltd. | |
| Fibreglass, Ltd. | lxvii | Richardson & Starling, Ltd. | lxviii | Zinc Alloy Rust Proofing Co., Ltd. | |
| Furse, W. J., & Co., Ltd. | lxvii | | | | |
| Gas Council, The | lxvii | | | | |

For Appointments (Wanted or Vacant), Competitions Open, Drawings, Tracings, etc., Educational, Legal Notices, Miscellaneous Property, Land and Sales, see lix, lx, lxi.



Architect: F. R. Steele, F.R.I.B.A., F.R.I.C.S., M.T.P.I. County Architect.

Contractors: A. Smith & Sons, Bognor Regis.

IBSTOCK
LIGHT BROWN
MULTI-RUSTICS

FOR THE WEST SUSSEX COUNTY COUNCIL

Rose Green School BOGNOR REGIS

Faced with Istock light-brown Multi-rustics, the soft colour and good texture give warmth and harmony to suit the open nature of structure and surroundings.

The Istock works has wide experience in producing fine colour combination in facing bricks to meet architects' requirements.

IBSTOCK BRICK & TILE CO., LTD., near LEICESTER. Telephone: 391
LONDON: L.M.S. Goods Depot, Wright's Lane, W.8. Telephone: Western 1281

PAGE

cxviii
xxiv

vi
xliii
lxi
li

lvii

lxi
lii
lvi

xxi
lxiii

lvi

xxviii

xlii

xliii
lv
xxxvii

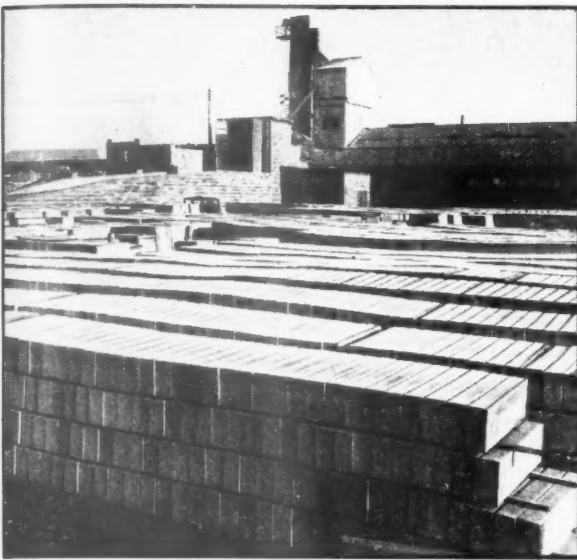
iv, v
xvii



TA
VI
ETT

London





ROAD KERB

Made strictly to British Standard No. 340 (1950)

Vibrated or Hydraulically Pressed
of Granite or Gravel Aggregate.
Tool-dressed to order.

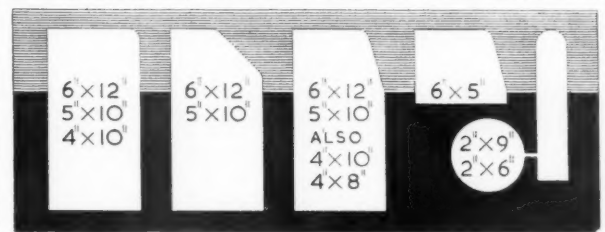
| Section | Description | Approx. Weight |
|----------------------|----------------------|-------------------|
| 6" x 12" B.S. Fig. 1 | Rectangular Bullnose | 10½ yards per ton |
| 5" x 10" " " 2 | " " " | 15 " " |
| 4" x 10" " " 3 | " " " | 18½ " " |
| 6" x 12" " " 4 | Splayed Section | 11 " " |
| 5" x 10" " " 5 | " " " | 16½ " " |
| 6" x 12" " " 6 | Half Batter Section | 10½ " " |
| 5" x 10" " " 7 | " " " | 15½ " " |

Stocks, including Channel, Standard Radii and Quadrants are held at our Works at Willenhall, S. Staffs; Kidsgrove, N. Staffs; Iwer, Bucks; Littlehampton, Sussex; Scunthorpe, Lincs; and Whitchurch, S. Wales. Full particulars and prices on request.

TARMAC LIMITED VINCULUM DEPT. ETTINGSHALL, WOLVERHAMPTON

Telephone: BILSTON 41101 8 (8 lines)

London Office: 50 Park St., W.1. 'Phone: GROsvenor 1422-5 (4 lines)

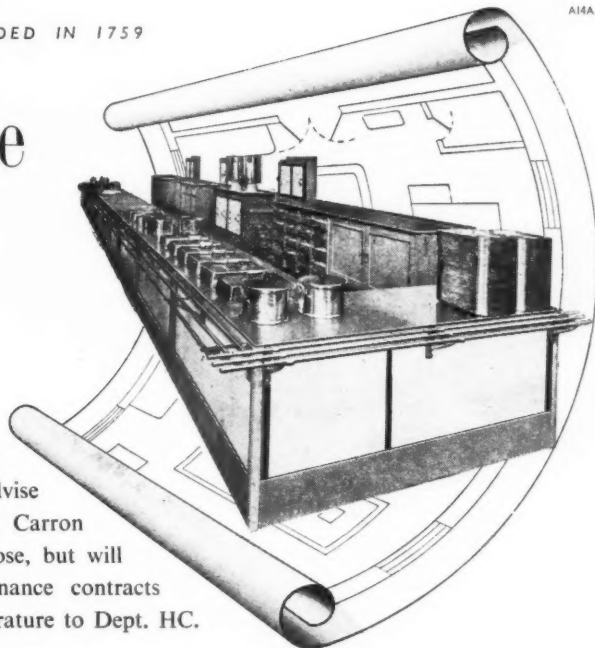


CARRON

THE ROYAL CHARTER COMPANY FOUNDED IN 1759

Carron will plan the complete kitchen layout for you

Carron heavy duty cooking equipment is produced to run on any type of solid fuel, steam, gas, oil or electricity. Carron experts are in a position to advise on the most suitable installation. Not only will Carron supply the best cooking equipment for your purpose, but will plan the complete installation. Regular maintenance contracts can be arranged. Write for further details and literature to Dept. HC.



Carron

HEAVY DUTY COOKING EQUIPMENT Coal · Coke · Steam · Oil · Gas · Electricity

CARRON COMPANY · CARRON · FALKIRK · STIRLINGSHIRE and London · Manchester · Liverpool · Newcastle · Glasgow

MILLFRAME

SCAFFOLDING

FOR

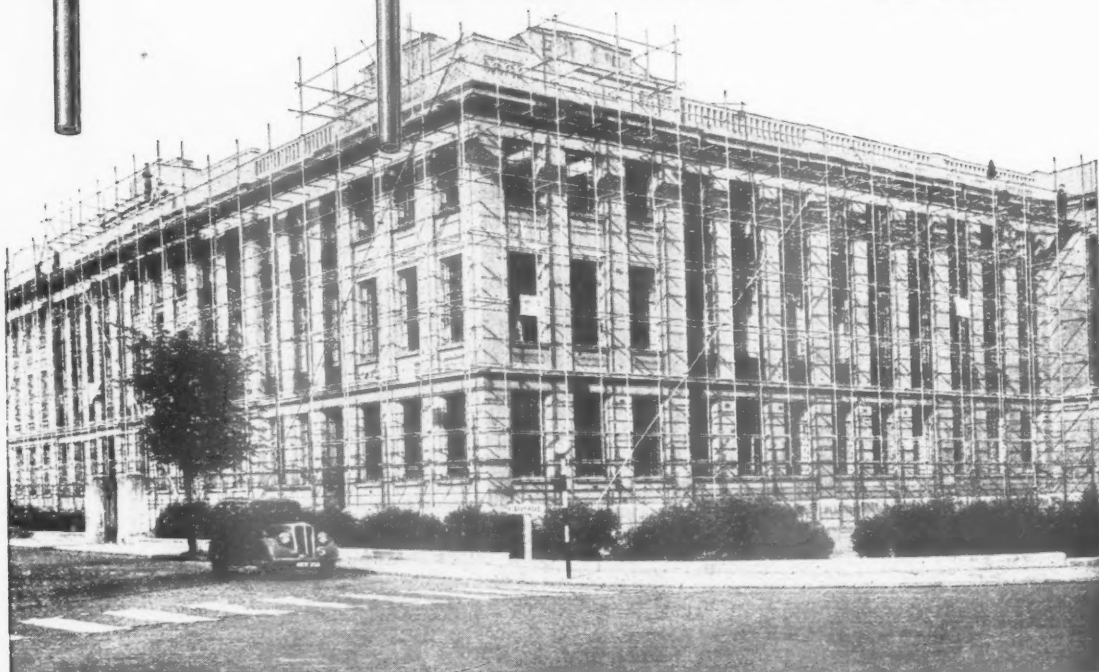
IGH SPEED ERECTION

AND

IGH SPEED DISMANTLING

WITH

IGHEST SAFETY FACTOR



MILLS SCAFFOLD CO., LTD.

BELFAST • BIRMINGHAM • BOURNEMOUTH • BRADFORD • BRISTOL • CANTERBURY • CARDIFF • COVENTRY
CROYDON • DUBLIN • EXETER • GLASGOW • HULL • ILFORD • LIVERPOOL • LOWESTOFT • MANCHESTER
NEWCASTLE • NORWICH • PLYMOUTH • PORTSMOUTH • READING • SOUTHAMPTON • SWANSEA • YARMOUTH

MILLS SCAFFOLD CO. LTD., Head Office and Depot: TRUSSLEY WORKS, HAMMERSMITH GROVE, LONDON, W.6. Tel.: RIVerside 5026/9

